AMERICAN MIDSTREAM, LLC

CHATOM GAS PRODUCTION, TREATING, & PROCESSING FACILITY

WASHINGTON COUNTY, AL

FACILITY NO.: 108-0009

MAJOR SOURCE OPERATING PERMIT
THIRD TITLE V RENEWAL

DRAFT

(THIS PAGE LEFT BLANK INTENTIONALLY)

Table of Contents

AMERICAN MIDSTREAM, LLC
CHATOM GAS PRODUCTION, TREATING, & PROCESSING FACILITY
WASHINGTON COUNTY, AL
Facility No.: 108-0009

STATEMENT OF BASIS

The proposed third Title V Major Source Operating Permit (MSOP) Renewal is issued under the provisions of ADEM Admin. Code r. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of Alabama Department of Environmental Management, in accordance with the terms and the conditions of this permit.

American Midstream, LLC obtained the Chatom Plant from Quantum Resources Management, LLC and was issued a modified version of the existing MSOP on September 5, 2012. Quantum was issued the existing MSOP on January 18, 2011 with an effective date of January 23, 2011 and an expiration date of January 22, 2016. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more that eighteen (18) months, before the date of expiration for the permit. The initial renewal application was submitted to the Department in a timely manner on July 23, 2015. Updated application forms were submitted on January 20, 2017. The proposed MSOP will expire on **[DATE]**.

PROCESS DESCRIPTION

The sour gas feed for the facility is produced and gathered from the Chatom gas field. Upon entering the facility, the field gas is separated from the liquids (i.e. condensate and water) in inlet high-pressure, three-phase (i.e. gas, crude oil or condensate, water) gas-liquid separator. The sour gas stream exiting the inlet high-pressure separator is sweetened as it passes through the high-pressure amine contactor which removes carbon dioxide and various sulfur compounds from the gas. The sweetened, high-pressure wet gas then goes through a glycol dehydration unit, which decreases the water content and/or the freezing temperature of the gas stream. The sweet, dried gas then enters a de-ethanizing unit to remove the propane and heavier components. The de-ethanized liquid stream is sent to fractionation units which fractionate the liquid stream into propane, butane, and a pentane mix. The sweet gas leaving the de-ethanizer is sent to a natural gas pipeline for sales. The gases exiting the condensate stabilizer and the rich amine flash tank is compressed and sent to the amine contactor for sweetening.

The impure amine solution leaving the amine contactor is sent to an amine regeneration unit where acid gas is driven off the impure amine. Acid gas leaving the amine regeneration unit is sent to a three-stage Claus sulfur recovery unit and a SCOT tail gas

unit to convert the hydrogen sulfide into molten elemental sulfur. The tail gas leaving the SCOT tail gas unit is sent to the thermal oxidizer for burning.

The condensate exiting the high-pressure separator is flashed to a lower pressure in the condensate flash tank prior to the liquid entering a stabilizer to lower the vapor pressure of the condensate stream. The liquids are then sent to storage while awaiting sales. Vapors from the condensate storage tanks are captured and compressed and routed along with sour gas from the condensate flash tank and the stabilizer overhead to the low-pressure amine contactor for sweetening.

Produced water from the inlet separator and the condensate flash tank is sent to the water separation system to remove any remaining gas. The vapors are separated and vented to a dedicated flare for burning. The water is sent to a gas blanketed storage tank prior to its being disposed of.

Equipment List

The Chatom Gas Production, Treating, & Processing Facility (Chatom) is currently equipped with the following equipment:

Significant

- Sulfur Recovery Unit with Thermal Oxidizer (Source 001)
- 40.2 MMBtu/hr Auxiliary Boiler (Source 002)
- 20.8 MMBtu/hr Process Heater (Source 003)
- 16.5 MMBtu/hr Stabilizer Reboiler (Source 004)
- Three (3) 750 BHP Inlet Gas Compressor Engines (Source 007)
- Two (2) 580 BHP Refrigeration Compressor Engines
- Two (2) 458 BHP Re-compressor Engines
- Six (6) 375 BHP Electrical Generation Engines
- Glycol Dehydration Unit
- Six (6) 400 bbl Condensate Storage Tanks and Loading
- Process Flare
- Sour Gas Flare

Insignificant

- A list of all insignificant activities can be found in the Title V renewal application.

NOTABLE CHANGES

American Midstream, LLC has made a request to modify its existing Major Source Operating Permit (MSOP).

This renewal will address the following changes:

1. Removal of the fuel gas testing requirements for the process heater, boilers, and inlet compressor engines.

2. Applicability of the area source requirements under 40 CFR part 63, subpart ZZZZ for remote stationary engines.
    a. The 750 BHP inlet compressor engines and the 580 BHP refrigeration compressor engines meet the definition for remote stationary RICE under subpart ZZZZ.

FACILITY-WIDE EMISSION REQUIREMENTS

DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
Petroleum Production - Facility that handles natural gas containing 0.10 grains of H_2S/scf	H_2S	Burn gas 20 ppbv offsite concentration	Rule 335-3-5-.03(1) Rule 335-3-5-.03(2)
Onshore Natural Gas Processing Plants All affected facilities: Compressors in VOC or wet gas service Group of equipment in process unit Dehydration units Sweetening units LNG unit	VOC	LDAR work practices	40 CFR 60 Subpart KKK

The plant's applicability to the state and federal regulations are discussed in the following sections.

STATE REGULATIONS

ADEM Admin. Code r. 335-3-5-.03(2) *"Petroleum Production"-Control of Sulfur Compounds*

Applicability:

ADEM Admin. Code r. 335-3-5-.03(2) states that all process streams containing at least 0.10 grains of hydrogen sulfide (H_2S) per SCF [~162 ppmv] shall be burned such that the offsite H_2S concentration is 20 ppbv or less, as averaged over a 30-minute period. The flare and sulfur recovery unit (SRU) / thermal oxidizer would be subject to this regulation. The specific monitoring and recordkeeping requirements will be discussed in the flare and SRU/Thermal Oxidizer sections.

ADEM Admin. Code r. 335-3-14-.04, "*Prevention of Significant Deterioration (PSD) Permitting*"

Applicability:

This facility is a major source for PSD. In order for the facility to maintain its status as a grandfathered source with respect to PSD, it would be required not to exceed the significant emission rates found in Rule 335-3-14-.04(2)(w) for each new project at an existing major stationary source.

ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits" (MSOP)*

Applicability:

The facility has been deemed a major source of criteria pollutants under this regulation since the sulfur dioxide (SO_2) emissions from the facility have the potential to exceed the 100 TPY threshold for criteria pollutants. However, the facility would not be a major source of hazardous air pollutants (HAPs) because the HAP emissions are not expected to exceed the 10 TPY threshold for a single HAP or the 25 TPY threshold for a combination of HAPs. The facility would be an area source with respect to HAP emissions.

FEDERAL REGULATIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

40 CFR 60 Subpart A, "*General Provisions*"

Applicability:

Provided that the facility is subject to one of the applicable subparts found under this part, the facility shall comply with this regulation as specified in that subpart.

40 CFR 60 Subpart KKK, *"Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants" [NSPS KKK]*

Applicability:

This facility is subject to this subpart because it is a natural gas processing plant for which modification commenced after January 20, 1984. Affected facilities under this regulation include compressors in VOC service or in wet gas service (§60.630(a)(2)) and the group of all equipment within a process unit (§60.630(a)(3)). Equipment would be defined in this subpart as pumps, pressure relief devices, open-ended valve or line, valve, compressor (except reciprocating compressors in wet gas service (§60.633(f)), and flanges or other connectors that are in VOC service or wet gas service. The facility's dehydration units, sweetening unit, field gas gathering system, and liquefied natural gas unit are also be covered by this subpart (§60.630(e)).

Emission Standards:

The emission standards found in §60.632 shall be met, except as provided in §60.633. The emissions standards for subpart KKK refer to 40 CFR part 60 subpart VV, "*Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*."

Compliance and Performance Test Methods and Procedures:

Test methods and procedures specified in §60.485, except as specified in §60.333(f), shall be used to demonstrate compliance with the emission standards.

Emission Monitoring:

Inspection and monitoring requirements are specified in §60.482-1 through §60.482-10 of subpart VV. Alternative methods of monitoring valves may be elected as specified in either 40 CFR §60.483-1 or §60.483-2 of subpart VV (40 CFR §60.632(a) & (b) of subpart KKK).

Recordkeeping and Reporting Requirements:

Recordkeeping requirements shall be met by complying with §60.486 of subpart VV as specified in §60.635 of subpart KKK.

Reporting requirements shall be met by complying with §60.487 of subpart VV as specified in §60.636 of subpart KKK.

A Leak Detection and Repair (LDAR) summary report shall be submitted to the Department on a semiannual basis.

40 CFR 60 Subpart OOOO, *"Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution" [NSPS OOOO]*

Applicability:

This facility is not subject to this subpart because there are no affected sources at this facility as defined in §60.5365 since the facility has not undergone construction, modification or reconstruction after August 23, 2011.

40 CFR 60 Subpart OOOOa, *"Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution" [NSPS OOOOa]*

Applicability:

This facility is not subject to this subpart because there are no affected sources at this facility as defined in §60.5365a since the facility has not undergone construction, modification or reconstruction after September 18, 2015.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

40 CFR 63, Subpart A, *"General Provisions"*

Applicability:

Provided that the facility is subject to one of the applicable subparts found under this part, the facility shall comply with this regulation as specified in that subpart.

40 CFR 63 Subpart HH, *"National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities" [Oil and Gas MACT]*

Applicability:

The Chatom facility processes natural gas prior to the point of custody transfer, and the

facility is defined as an area source of HAPs. Chatom is an area source of HAPs since it does not meet the definition of a major source of HAPs as defined in 40 CFR 63.761. In order for this facility to be subject to the applicable area source requirements of this subpart, it is required to have an affected source. An affected source for area sources of HAPs would include each tri-ethylene glycol (TEG) dehydration unit. Since the facility is only equipped with an ethylene glycol (EG) dehydration unit, it is not subject to the applicable requirements under this subpart.

40 CFR 64, "COMPLIANCE ASSURANCE MONITORING (CAM)"

Applicability:

This subpart is applicable to an emission source provided the source meets the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR 64.2(a)]. The flare and SRU/thermal oxidizer are subject to the requirements of this subpart. Compliance with this subpart is discussed in the individual sections for the units.

FACILITY-WIDE EMISSIONS

Facility wide potential emissions were obtained from the Title V renewal application.

POTENTIAL FACILITY WIDE EMISSIONS (TPY)						
PM	**SO_2**	**NO_X**	**CO**	**VOC**	**Total HAPs**	**GHG**
8.12	2,774	480	2,067	106	21.0	236,266

BOILERS AND PROCESS HEATER REQUIREMENTS

DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
40.2 MMBtu/hr, Gas-Fired Utility Boiler (10184287)	SO_2	0.22 lb/MMBtu	Rule 335-3-14-.04 [Anti-PSD]
	PM	0.35 lb/MMBtu	Rule 335-3-4-.03(2)
	Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
		AND	
		No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)
20.8 MMBtu/hr, Gas-Fired Process Heater (10184282)	SO_2	4.0 lb/MMBtu	Rule 335-3-5-.01(1)(b)
	PM	0.52 lb/MMBtu	Rule 335-3-4-.03(2)
	Opacity	<= 20%	Rule 335-3-4-.01(1)(a)
		< 40%	Rule 335-3-4-.01(1)(b)
16.5 MMBtu/hr, Gas-Fired Stabilizer Reboiler (STABILIZER)	SO_2	4.0 lb/MMBtu	Rule 335-3-5-.01(1)(b)
	PM	0.60 lb/MMBtu	Rule 335-3-4-.03(2)
	Opacity	<= 20%	Rule 335-3-4-.01(1)(a)
		< 40%	Rule 335-3-4-.01(1)(b)

There is one notable change to the boiler and process heater requirements section:

1. The fuel gas testing requirements will be removed from the permit.
    a. Previously, the facility was required to test the fuel gas burned in these units for its H_2S content and Btu content once every six (6) months.
    b. The facility has shown through documentation that the fuel burned in these units is pipeline quality natural gas.
    c. The facility has agreed that in lieu of the testing requirements, a requirement to burn only pipeline quality natural gas in these units will be included in the permit.
    d. The facility will be required to keep a record of the fuel certification documenting that the fuel is pipeline quality.

STATE REGULATIONS

ADEM Admin. Code r. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

Applicability:

The boilers and process heater would be subject to the requirements of this regulation.

Emissions Standards:

ADEM Admin. Code r. 335-3-4-.01(1) (a) states that except for one 6-minute period during any 60-minute periods, stationary emission sources shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.

ADEM Admin. Code r. 335-3-4-.01(1)(b) states that at no time shall a stationary emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a six minute average.

Compliance and Performance Test Methods and Procedures:

If visible emissions are observed in excess of the standards from the boilers or process heater, Method 9 or Method 22 found in 40 CFR part 60, appendix A would be used to demonstrate compliance with the opacity standards.

Emissions Monitoring:

Minimal opacity is expected from the boilers and process heater because all burn pipeline quality or sweetened natural gas. Therefore, a daily visible inspection in not required. However, if visible emissions are observed from these units in excess of the standards, a visible emissions observation (VEO) would be required.

Recordkeeping and Reporting Requirements:

A record of each VEO conducted shall be maintained.

ADEM Admin. Code r. 335-3-4-.03(1), "*Fuel Burning Equipment*" for Control of Particulate Emissions

Applicability:

The boilers and process would be subject to the requirements of this regulation.

Emissions Standards:

Washington County is considered a Class 2 County under this regulation. Therefore, the boilers and process heater are subject to particulate emissions limits given by the following equation:

$$\mathbf{E} \text{ (emissions in lb/MMBtu)} = 3.109 * \mathbf{H} \text{ (heat input in MMBtu/hr)}^{-0.589}$$

The limits for each boiler and process heater are listed on page 8 under the Boilers and Process Heater Requirements section.

Compliance and Performance Test Methods and Procedures:

The boilers and process heater burn sweetened natural gas. Therefore, particulate emissions are expected to be well below the given limit.

Emissions Monitoring:

No monitoring is required regarding this regulation.

Recordkeeping and Reporting Requirements:

No records are required to be maintained.

ADEM Admin. Code r. 335-3-5-.01(1)(b), "*Fuel Combustion*" for Control of Sulfur Compound Emissions

Applicability:

The boilers and process heater would be subject to the requirements of this regulation. However, the 40.2 MMBtu/hr boiler is subject to a more stringent Anti-PSD SO_2 limit.

Emissions Standards:

Washington County is considered a Sulfur Dioxide Category II County. Therefore, the 16.5 MMBtu/hr reboiler and the process heater are limited to 4.0 lb/MMBtu of sulfur dioxide emissions.

Compliance and Performance Test Methods and Procedures:

To demonstrate compliance with the emissions standards for the reboiler and process heater, the following requirements must be met:

- The fuel gas must be certified pipeline quality natural gas.

Emissions Monitoring:

Certification that the fuel being burned in each unit is pipeline quality.

Recordkeeping and Reporting Requirements:

The following monthly records should be maintained for the boilers and process heater: deviations, maintenance, operating hours, fuel gas certification, and SO_2 emissions.

ADEM Admin. Code r. 335-3-14-.04, "*Prevention of Significant Deterioration (PSD) Permitting*"

Applicability:

An Anti-PSD SO_2 limit has been placed on the 40.2 MMBtu/hr boiler.

Emissions Standards:

The emissions standard used to demonstrate compliance with the Anti-PSD limit for the boiler is listed on page 8 under the Boilers and Process Heater Requirements section.

Compliance and Performance Test Methods and Procedures:

To demonstrate compliance with the emissions standard for the boiler, the following requirements must be met:

- The fuel gas must be certified pipeline quality natural gas.

Emissions Monitoring:

Certification that the fuel being burned in each unit is pipeline quality.

Recordkeeping and Reporting Requirements:

The following monthly records should be maintained for the boilers and process heater: deviations, maintenance, operating hours, fuel gas certification, and SO_2 emissions.

FEDERAL REGULATIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

40 CFR Part 60 Subpart D_C, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*" *[NSPS D_C]*

Applicability:

The 40.2 MMBtu/hr boiler would be subject to this regulation because it was constructed after June 9, 1989 and has a maximum heat input capacity between 10 and 100 MMBtu/hr.

Emissions Standards:

There are no emissions standards because this unit burns sweetened natural gas.

Recordkeeping and Reporting Requirements:

This subpart requires that the facility maintain a record of the fuel combusted in the utility boiler once each calendar month (§60.48c(g)(2)), maintain a record of the fuel usage for a period of two years (§60.48c(i)), and submit a semi-annual report of these records (§60.48c(j)). However, in a letter dated May 27, 2003, EPA approved the facility's alternative

recordkeeping and reporting plan for the utility boiler since it burns only natural gas or low sulfur fuel. The facility is required to maintain a monthly record of the fuel combusted in the utility boiler, maintain the required records for a period of five years instead of two, and submit an annual report instead of a semi- annual report.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

40 CFR 63 Subpart DDDDD, *"National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" [Boiler MACT]*

Applicability:

This facility does not have the potential to emit 10 tons per year (TPY) or more of a single HAP or 25 TPY or more of a combination of HAPs. Therefore, the boilers are not located at a major source of HAPs and are not subject to this subpart.

40 CFR 63 Subpart JJJJJJ, *"National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers"*

Applicability:

This facility is an area source of HAPs. However, the permit requires that these boilers burn only pipeline quality sweetened natural gas. Per §63.11195, gas-fired boilers are not subject to this subpart.

BOILERS AND PROCESS HEATER POTENTIAL EMISSIONS

BOILER AND PROCESS HEATER EMISSIONS						
EMISSION SOURCE	(TPY)					
	PM	SO_2	NO_X	CO	VOC	TOTAL HAP
Utility Boiler	1.31	0.10	17.2	14.4	0.94	0.34
Process Heater	0.68	0.05	8.93	7.50	0.49	0.18
Stab. Reboiler	0.54	0.04	7.09	5.95	0.39	0.14
Total Emissions	2.53	0.19	33.2	27.9	1.82	0.66

ENGINE REQUIREMENTS

DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(3) 750 BHP, Gas-Fired, 4-Stroke Rich Burn ICE w/ catalytic converter Inlet Gas Compressor Engines (10187136, 10184350, & 10187132)	NO_X	2.48 lbs/hr	Rule 335-3-14-.04 [Anti-PSD]
10187136 & 10184350	VOC	1.65 lbs/hr	Rule 335-3-14-.04 [Anti-PSD]
(2) 580 BHP, Gas-Fired, 4-Stroke Rich Burn ICE Refrigeration Compressor Engines (10222555 & 10184310)		NONE	
(2) 458 BHP, Gas-Fired, 4-Stroke Rich Burn ICE Re-compressor Engines (10184350 & 10184351)		NONE	
(6) 375 BHP, Gas-Fired, 4-Stroke Rich Burn ICE Electrical Generators (10184133, 10184119, 10184134, 10184135, 10184144, & 10184131)		NONE	
ALL ENGINES	Opacity	No more than one 6 min avg. > 20% AND	Rule 335-3-4-.01(1)(a)
		No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)
	HAPs	Work Practice Standards	40 CFR 63 Subpart ZZZZ

There are two notable change to the engine requirements section:

1. The fuel gas testing requirements for the 750 BHP inlet compressor engines will be removed from the permit.
    a. Previously, the facility was required to test the fuel gas burned in these units for its H_2S content and Btu content once every six (6) months.
    b. The facility has shown through documentation that the fuel burned in these units is pipeline quality natural gas.
    c. The facility has agreed that in lieu of the testing requirements, a requirement to burn only pipeline quality natural gas in these units will be included in the permit.
    d. The facility will be required to keep a record of the fuel certification documenting that the fuel is pipeline quality.

2. The 750 BHP inlet compressor engines and the 580 BHP refrigeration compressor engines meet the definition for remote stationary RICE under subpart ZZZZ.
    a. On August 23, 2013, American Midstream, LLC submitted a permit modification application requesting that these engines be designated "remote stationary RICE" as defined in §63.6675.
    b. Per §63.6675, a stationary RICE not located on a pipeline segment is remote if there are 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine.
    c. In the August 23, 2013 application, the facility submitted an aerial diagram of the facility that included a quarter mile radius drawn from the location of each applicable engine. This diagram shows that there are no buildings intended for human occupancy within a 0.25 radius of each engine.
    d. Since the facility submitted its evaluation before the initial compliance date [October 19, 2013, §63.6603(f)] and the status of the engines has not changed, these engines will be designated as remote stationary RICE. The new requirements for these engines will be discussed in this section.

STATE REGULATIONS

ADEM Admin. Code r. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

Applicability:

The engines would be subject to the requirements of this regulation.

Emissions Standards:

The engines would be required to comply with the 20%/40% state opacity standards specified in these subparts.

Compliance and Performance Test Methods and Procedures:

If visible emissions are observed in excess of the standards from the engines, Method 9 or Method 22 found in 40 CFR part 60, appendix A would be used to demonstrate compliance with the opacity standards.

Emissions Monitoring:

Minimal opacity is expected from the engines because all burn pipeline quality or sweetened natural gas. Therefore, a daily visible inspection in not required. However, if visible emissions are observed from these units in excess of the standards, a visible emissions observation (VEO) would be required.

Recordkeeping and Reporting Requirements:

A record of each VEO conducted shall be maintained.

ADEM Admin. Code r. 335-3-14-.04, .08(a) and (b), and .09(a) and (b), "*Prevention of Significant Deterioration (PSD) Permitting*"

Applicability:

Anti-PSD limits have been placed on the 750 BHP Inlet Gas Compressor Engines.

Emissions Standards:

All three 750 BHP engines are limited to 2.48 lbs/hr of NO_X emissions. Two of the engines are also limited to 1.65 lbs/hr of VOC emissions.

Compliance and Performance Test Methods and Procedures:

To demonstrate compliance with the emissions standards for the engines, the following requirements must be met:

- The engines must be tested for NO_X emissions using EPA 40 CFR 60 Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E OR another methodology approved by the Department.
- The engines must be tested for VOC emissions using EPA 40 CFR Part 60 Appendix A, Method 18, 25, 25A, 25B, 25C, 25D, or 25E OR another methodology approved by the Department.

Emissions Monitoring:

The fuel gas volume for the engines shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculations.

A performance test shall be conducted on the engines at least once every five (5) years.

To demonstrate compliance with the emissions standards for the engines, the fuel gas must be certified pipeline quality for its BTU and sulfur content. The fuel gas heat content, emission factors, fuel volume used, and operating hours will be utilized in monthly calculations of pollutant emissions.

The engines employ the use of non-selective catalytic reduction (NSCR) to control NO_X and VOC emissions. The facility must choose at least one of the following monitoring options: monitor the pressure drop across the catalyst bed weekly, monitor the temperature drop across the catalyst bed weekly, and/or monitor the NO_X concentration in the catalytic converter exhaust gas weekly.

Recordkeeping and Reporting Requirements:

The following monthly records should be maintained for the engines: deviations from the permit requirements, maintenance performed, fuel consumption, fuel gas certification, engine fuel heat input (MMBtu/Month), operating hours, and NO_X and VOC emissions.

A Periodic Monitoring Report (PMR) that identifies each incidence of a deviation from a permit term or condition shall be prepared and submitted to the Department semi-annually on a calendar basis. The reports shall be received within 30 days of the end of the reporting period.

FEDERAL REGULATIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

40 CFR 60 Subpart A, "*General Provisions*"

Applicability:

Provided that the facility is subject to one of the applicable subparts found under this part, the facility shall comply with this regulation as specified in that subpart.

40 CFR 60 Subpart JJJJ, "*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*" *[NSPS JJJJ]*

Applicability:

NSPS JJJJ would not apply to any of the engines since the engines were constructed prior to June 12, 2006.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

40 CFR 63 Subpart A, *"General Provisions"*

Applicability:

Provided that the facility is subject to one of the applicable subparts found under this part, the facility shall comply with this regulation as specified in that subpart.

40 CFR 63 Subpart ZZZZ, *"National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" [MACT ZZZZ]*

Applicability:

The engines are subject to MACT ZZZZ because they are existing stationary RICE located at an area source of HAPs for which construction commenced before June 12, 2006.

The inlet gas compressor engines (750 BHP) and the refrigeration compressor engines (580 BHP) meet the definition of "remote stationary RICE" under §63.6675. These engines meet the third criteria in the definition: "Stationary RICE that are not located on gas pipelines and

that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine." The facility has included in the Title V application an aerial map of the facility illustrating compliance with this criterion.

The remote status of the remaining engines has no bearing on the regulatory applicability of these units because only engines with a max horsepower greater than 500 BHP have their requirements determined by remote or non-remote status.

Emissions Standards:

The 750 BHP and 580 BHP engines are subject to the work practice standards in Table 2d for non-emergency, non-black start 4SRB remote stationary RICE >500 BHP (No. 11).

The re-compressor engines (458 BHP) and the electrical generator engines (375 BHP) are subject to the work practice standards in Table 2d for non-emergency, non-black start 4SRB stationary RICE ≤500 BHP (No. 10).

Compliance and Performance Test Methods and Procedures:

Each engine is subject to the work and management practice requirements in Table 6 (No. 9).

Emissions Monitoring:

Each engine's time spent at idle during startup shall be minimized and the engine's startup time shall be minimized to a period needed for appropriate and safe loading of the engine as specified in §63.6625(h).

Recordkeeping and Reporting Requirements:

The following records must be maintained for the engines: maintenance conducted on the engine, hours of operation, maintenance plan, occurrence and duration of each malfunction of operation, and actions taken during periods of malfunction.

40 CFR 64, "COMPLIANCE ASSURANCE MONITORING (CAM)"

Applicability:

The inlet gas compressor engines have emission limits for NO_X and/or VOC and use a control device (NSCR) to comply with the limits. However, each engine's potential uncontrolled emissions are not expected to exceed 100 TPY or more for criteria pollutants, and they are not expected to exceed 10 tons or more of a single HAP or 25 tons or more of a combination of HAPs. Therefore, CAM would not apply.

ENGINE POTENTIAL EMISSIONS

ENGINE EMISSIONS						
EMISSION SOURCE	(TPY)					
	PM	SO_2	NO_X	CO	VOC	TOTAL HAP
(3) 750 BHP	1.71	0.05	32.6	54.3	21.6	1.28
(2) 580 BHP	0.93	0.03	109	178	1.42	1.47
(2) 458 BHP	0.73	0.02	85.9	141	1.12	1.16
(6) 375 BHP	1.81	0.06	211	346	2.76	2.86
TOTAL	5.18	0.16	439	719	26.9	6.77

SRU AND THERMAL OXIDIZER REQUIREMENTS

DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
Thermal Oxidizer (10184323)	H_2S	Burn gas with 0.10 grains/Scf	Rule 335-3-5-.03(2)
		Offsite Concentration less than 20 ppbv	
	Opacity	<= 20%	Rule 335-3-4-.01(1)(a)
		< 40%	Rule 335-3-4-.01(1)(b)
Sulfur Recovery Unit (SRU) Available Sulfur for Cat. II County:			
Available sulfur $\leq$ 10 LTons/Day	SO_2	Unlimited	Rule 335-3-5-.03(3)
OR			
Available sulfur > 10 LTons/Day and $\leq$ 50 LTons/Day	SO_2	560 Lbs SO_2/Hour	
OR			
Available sulfur > 50 LTons/Day and $\leq$ 100 LTons/Day	SO_2	0.10 Lbs SO_2/Lb Sulfur	
OR			
Available sulfur > 100 LTons/Day	SO_2	0.08 Lbs SO_2/Lb Sulfur	
Allowable SO_2 emission increases relative to the H_2S content of acid gas:		Depends on the mole % of H_2S in Dry Acid Gas	Rule 335-3-5-.03(3)(a)
H_2S% in acid gas > 50% & $\leq$ 60%	SO_2	0.02 Lbs SO_2/Lb Sulfur	
OR			
H_2S% in acid gas > 40% & $\leq$ 50%	SO_2	0.04 Lbs SO_2/Lb Sulfur	
OR			
H_2S% in acid gas > 30% & $\leq$ 40%	SO_2	0.06 Lbs SO_2/Lb Sulfur	
OR			
H_2S% in acid gas > 20% & $\leq$ 30%	SO_2	0.10 Lbs SO_2/Lb Sulfur	

STATE REGULATIONS

ADEM Admin. Code r. 335-3-4-.01(1)(a) and (b), *"Visible Emissions" for Control of Particulate Emissions*

Applicability:

The thermal oxidizer would be subject to the requirements of this regulation.

Emission Standards:

The thermal oxidizer would be required to comply with the 20%/40% state opacity standards specified in these subparts.

Compliance and Performance Test Methods and Procedures:

Method 9 or Method 22 found in 40 CFR 60, Appendix A would be used to demonstrate compliance with the opacity standards. When Method 22 is used to determine the duration of emissions, the method has to be conducted by an individual who is familiar with the procedures. When Method 9 is used to determine opacity, it has to be conducted by an individual who is certified to use this procedure. Visible emissions observations are required to be conducted during daylight hours.

Emissions Monitoring:

To comply with the opacity standards, the facility would be required to conduct a daily visual inspection of the thermal oxidizer for the presence or absence of visible emissions. Provided that visible emissions in excess of the opacity standards are observed during the daily inspections, a visible emission observation of the thermal oxidizer shall be conducted.

Recordkeeping and Reporting Requirements:

A record of each daily visible inspection and each occurrence when a visible emissions observation was conducted should be recorded and maintained. A deviation should be reported within 48 hours or 2 working days when a visible emissions event occurs.

ADEM Admin. Code r. 335-3-5-.03 (1), (2) and (3), *"Petroleum Production"* for Control of Sulfur Compound Emissions

Applicability:

The thermal oxidizer would be subject to the requirements of these regulations since the facility handles natural gas that contains more than 0.10 grains of H_2S per standard cubic foot (SCF) (~160 ppmv).

Emission Standards:

ADEM Admin. Code r. 335-3-5-.03(2) requires that all process gas streams containing greater than 0.10 grains/Scf of H_2S shall be burned such that the offsite H_2S concentration is 20 ppbv or less, as averaged over a 30-minute period. The thermal oxidizer is used to comply with this regulation. Compliance is indicated by meeting the required sulfur recovery efficiency or sulfur dioxide emission rate found on page 19 under the SRU and Thermal Oxidizer Requirements section.

ADEM Admin. Code r. 335-3-5-.03(3) requires that SO_2 emissions from a facility that is designed to dispose of or process natural gas containing more than 0.10 grains/Scf of H_2S do not exceed the allowable limit based on the available sulfur coming into the facility. These limits are listed in the table on page 19. Compliance is indicated by capturing and routing the

acid gas from the amine sweetening unit to the SRU then routing the tail gas from the SRU to the thermal oxidizer.

Compliance and Performance Test Methods and Procedures:

To demonstrate compliance with the emissions standards for the SRU/thermal oxidizer, the following requirements must be met:

- SRU/thermal oxidizer must be tested for SO_2 emissions using EPA 40 CFR Part 60 Appendix A, Method 6, 6A, 6B, or 6C.
- SRU/thermal oxidizer must be tested for TRS concentration using EPA 40 CFR Part 60 Appendix A, Method 15 and/or Method 16, 16A, and 16B.
- Acid gas stream to SRU must be tested for H_2S using the Tutwiler procedures found in §60.648 OR the chromatographic analysis procedures found in ASTM E-260 OR the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacturer.

Emissions Monitoring:

The inlet feed volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculations along with its sulfur content.

The effluent volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculations along with its sulfur content.

A performance test shall be completed at least once every twelve (12) months.

Each acid gas stream shall be tested for H_2S at least once every month.

Recordkeeping and Reporting Requirements:

The following monthly records should be maintained for the SRU/thermal oxidizer: deviations from the permit requirements, performance tests records, maintenance records, VEO results, shutdown and start up of gas sweetening unit, SRU, and SCOT tailgas, and three hour rolling average CMS calculations of the sulfur recovery percentage, SO_2 emissions, and thermal oxidizer firebox temperature.

A Periodic Monitoring Report (PMR) that identifies each incidence of a deviation from a permit term or condition shall be prepared and submitted to the Department semi-annually on a calendar basis. The reports shall be received within 30 days of the end of the reporting period.

ADEM Admin. Code r. 335-3-14-.04, "*Prevention of Significant Deterioration (PSD) Permitting*"

Applicability:

There are currently no PSD limits on the SRU or thermal oxidizer.

FEDERAL REGULATIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

40 CFR Part 60 Subpart LLL, *"Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing" [NSPS LLL]*

Applicability:

This SRU and thermal oxidizer are not subject to this subpart because the affected facilities defined in §60.640 were constructed prior to January 20, 1984 and have not undergone modification or reconstruction.

40 CFR 64, "COMPLIANCE ASSURANCE MONITORING (CAM)"

Applicability:

The SRU and thermal oxidizer are used to control SO_2 emissions. The thermal oxidizer is utilized as control devices to burn gas containing greater than 0.10 grains of H_2S/Scf.

The requirement to burn off gases is considered to be a work practice and not an emission limitation. As defined in the CAM regulation, an emission limitation may be expressed in the form of a work practice, process parameter, or other form of specific design. Thus CAM is applicable and shall be utilized to insure compliance with the requirement to burn the off gases.

Emission Standards:

The firebox temperature shall be maintained at greater than or equal to 1,200℉. The SO_2 emission rate or sulfur recovery efficiency shall be maintained as required based on the available sulfur and the H_2S concentration in the acid gas stream.

Compliance and Performance Test Methods and Procedures:

An annual Relative Accuracy Test Audit (RATA) is required to demonstrate that the continuous emission monitoring system (CEMS) on the SRU and thermal oxidizer is functioning properly.

Emissions Monitoring:

The firebox temperature will be monitored continuously with a thermocouple or equivalent

device.

The inlet feed volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculations along with its sulfur content.

The effluent volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculations along with its sulfur content.

Recordkeeping and Reporting Requirements:

The facility is required to submit an Excess Emissions and CMS Performance Summary Report that identifies each period in which there was a failure to maintain the firebox temperature for the thermal oxidizer above or equal to 1,200℉, there was a failure to maintain the three hour rolling average sulfur recovery at an efficiency within the allowable range, there was a failure to maintain the three hour rolling average sulfur dioxide emissions at a rate that is less than or equal to the SO_2 allowable, and there was a failure of the CEMS to meet the requirements specified in Appendix F of 40 CFR part 60 while the sulfur removal system remained in operation. The report is due quarterly on a calendar basis within 30 days of the end of the reporting period.

THERMAL OXIDIZER POTENTIAL EMISSIONS

TO POTENTIAL EMISSIONS						
EMISSION SOURCE	(TPY)					
	PM	SO_2	NO_X	CO	VOC	TOTAL HAP
10184323	**0.17**	**2,691**	**6.22**	**1,312**	**4.38**	**4.73**

FLARE REQUIREMENTS

DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
Emergency Flare (F-01)	H_2S	Burn gas with 0.10 grains/Scf Offsite Concentration less than 20 ppbv	Rule 335-3-5-.03(2)
@ Available Sulfur <= 10 Long Tons/Day	SO_2	No Limit	Rule 335-3-5-.03(3)
	Opacity	No visible emissions except for 5 consecutive minutes in a 2 hour averaging period.	40 CFR 60.18(c)(1) Appendix A 40 CFR 60.633(g) Subpart KKK

STATE REGULATIONS

ADEM Admin. Code r. 335-3-4-.01(1)(a) and (b), *"Visible Emissions" for Control of Particulate Emissions*

Applicability:

The flare would be subject to the requirements of these regulations. However, the flare is required to meet more stringent federal opacity standards because it is used to comply with 40 CFR part 60, subpart KKK.

ADEM Admin. Code r. 335-3-5-.03 (1), (2) and (3), *"Petroleum Production" for Control of Sulfur Compound Emissions*

Applicability:

The facility flare would be subject to the requirements of these regulations since the facility handles natural gas that contains more than 0.10 grains of H_2S per standard cubic foot (SCF) (~160 ppmv).

Emissions Standards:

ADEM Admin. Code r. 335-3-5-.03(2) requires that all process gas streams containing greater than 0.10 grains/Scf of H_2S shall be burned such that the offsite H_2S concentration is 20 ppbv or less, as averaged over a 30-minute period. The flare is used to comply with this regulation; therefore, the H_2S feed rate to the flare must be maintained at or below 2,440 lbs/hr (established in a March 2008 modeling study). The feed rate is used as an indicator to show that compliance with the offsite concentration is being met.

ADEM Admin. Code r. 335-3-5-.03(3) requires that SO_2 emissions from a facility that is designed to dispose of or process natural gas containing more than 0.10 grains/Scf of H_2S do not exceed the allowable limit based on the available sulfur coming into the facility. Provided available sulfur is equal to or less than 10 long tons per day, there is no limit on sulfur dioxide emissions.

Compliance and Performance Test Methods and Procedures:

One of the following methods should be used to determine the H_2S content: Tutwiler procedures found in 40 CFR 60.648, chromatographic analysis procedures found in ASTM E-260, or stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacturer.

Emissions Monitoring:

A sample must be collected no less than once every four (4) months to determine the H_2S concentration of any gas stream that may be sent to the flare. To determine the H_2S feed rate to the flare, the inlet feed volume is required to be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculations or estimated utilizing material balances, computer simulations, special testing, etc.

Monitoring should be in the form of performing monthly calculations to determine the H_2S feed rate to the flare and the SO_2 emissions from the flare. The volume of gas flared and the H_2S concentration of the flared gas should be used to calculate the flare emissions.

Recordkeeping and Reporting Requirements:

The following monthly records should be maintained for the flare: deviations from the permit requirements, each visible emission observation conducted on the flare, H_2S content of process stream sent to the flare, gas volume burned in the flare, stream H_2S feed rate, flare H_2S feed rate, flare SO_2 emissions, and flare operating hours. The facility is required to submit semiannual periodic monitoring reports.

ADEM Admin. Code R. 335-3-14-.04, "*Prevention of Significant Deterioration (PSD) Permitting*"

Applicability:

There are no Anti-PSD or PSD limits on the flare at this time.

FEDERAL REGULATIONS

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

40 CFR 60 Subpart A, *"General Provisions"*

Applicability:

The flare would be subject to the requirements of §60.18, "General control device and work practice requirements," since it is used to comply with 40 CFR part 60, subpart KKK.

Emission Standards:

The flare must comply with the standards defined in §60.18(c), including operating with no visible emissions, except for a 5-minute period during any consecutive 2-hour period and operating with a flame present at all times.

Compliance and Performance Test Methods and Procedures:

Compliance with the emission standards shall be achieved using the methods and procedures defined in §60.18(f).

Emissions Monitoring:

Emissions monitoring shall be in the form of conducting a visible emission observation (VEO) within 30 minutes of each flaring event. Each VEO should last between 5 minutes and 2 hours.

Recordkeeping and Reporting Requirements:

The facility must maintain a record of the duration and results of each VEO.

40 CFR 64, "COMPLIANCE ASSURANCE MONITORING (CAM)"

Applicability:

The facility flare is utilized as a control device to burn gas containing greater than 0.10 grains of H_2S/Scf.

The requirement to burn off gases is considered to be a work practice and not an emission limitation. As defined in the CAM regulation, an emission limitation may be expressed in the form of a work practice, process parameter, or other form of specific design. Thus CAM is applicable and shall be utilized to insure compliance with the requirement to burn the off gases.

Emission Standards:

Maintain spark or flame at flare tip when gas could be routed to the flare.

Compliance and Performance Test Methods and Procedures:

Unless the flare is equipped with a continuous spark flame igniter or with a continuous burning pilot light that is monitored with a thermocouple or an equivalent device, daily visual inspections of the flare shall be conducted.

Emissions Monitoring:

The visual inspection of the flare (if required) shall be conducted daily during daylight hours to detect the presence or absence of a spark or flame at the flare tip.

Recordkeeping and Reporting Requirements:

A record of the date, time, observer, and results of each visual inspection of the flare shall be maintained. A record of the time, date and results of each calibration shall be maintained if a flame igniter or a thermocouple is being used. Each occurrence when a spark or flame is not maintained at the flare tip shall be reported as a deviation. If more than six (6) deviations occur during any semi-annual reporting period, a Quality Improvement Plan (QIP) shall be developed and implemented.

Periodic monitoring reports (PMR) are required to be submitted to the Department on a semi-annual basis and it is required to include deviations reported during the semi-annual reporting period.

FLARE POTENTIAL EMISSIONS

FLARE POTENTIAL EMISSIONS						
EMISSION SOURCE	(TPY)					
	PM	SO_2	NO_X	CO	VOC	TOTAL HAP
Flare No. 1	0.14	82.2	1.30	7.09	0.10	0.04

RECOMMENDATIONS

I recommend that American Midstream, LLC be issued a renewal for its Chatom Gas Production, Treating, & Processing Facility operating under MSOP No. 108-0009. My recommendation is based on the fact that the facility should be able to comply with all federal and state requirements specified in its permit.

_____ DRAFT

Jennifer Youngpeter
Air Division
Energy Branch
Industrial Minerals Section

Date

(THIS PAGE LEFT BLANK INTENTIONALLY)

ATTACHEMENT A:

DRAFT PROVISOS

Alabama Department of Environmental Management

MAJOR SOURCE OPERATING PERMIT

Permittee: **American Midstream Chatom, LLC**

Facility Name: **Chatom Gas Production, Treating, & Processing Facility**

Facility No.: 108-0009

Location: Highway 56 West, Chatom, Washington Co., AL

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date: *DRAFT*
Effective Date: *DRAFT*
Expiration Date: *DRAFT*

Table of Content

Table of Content

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
1. Transfer	
This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.	Rule 335-3-16-.02(6)
2. Renewals	
An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.	Rule 335-3-16-.12(2)
The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.	
3. Severability Clause	
The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.	Rule 335-3-16-.05(e)
4. Compliance	
(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.	Rule 335-3-16-.05(f)
(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.	Rule 335-3-16-.05(g)

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
5. Termination for Cause	
This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-16-.05(h)
6. Property Rights	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
7. Submission of Information	
The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-16-.05(j)
8. Economic Incentives, Marketable Permits, and Emissions Trading	
No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-16-.05(k)
9. Certification of Truth, Accuracy, and Completeness	
Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-16-.07(a)
10. Inspection and Entry	
Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental	Rule 335-3-16-.07(b)

Federally Enforceable Provisos	Regulations
Management and EPA to conduct the following: (a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.	
11. Compliance Provisions (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	Rule 335-3-16-.07(c)
12. Compliance Certification On, or before, **DATE** of each year, a compliance certification shall be submitted. (a) The compliance certification shall include the following: (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);	Rule 335-3-16-.07(e)

Federally Enforceable Provisos	Regulations
(4) Whether compliance has been continuous or intermittent; (5) Such other facts as the Department may require to determine the compliance status of the source; (b) The compliance certification shall be submitted to: Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13. <u>Reopening for Cause</u> Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit: (a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire. (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit. (c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	Rule 335-3-16-.13(5)

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
14. Additional Rules and Regulations	
This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.	§22-28-16(d), Code of Alabama 1975, as amended
15. Equipment Maintenance or Breakdown	
(a) In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:	Rule 335-3-1-.07(1) Rule 335-3-1-.07(2)
(1) Identification of the specific facility to be taken out of service as well as its location and permit number;	
(2) The expected length of time that the air pollution control equipment will be out of service;	
(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;	
(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;	
(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.	
(b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been	

Federally Enforceable Provisos	Regulations
corrected.	
16. Operation of Capture and Control Devices	
All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.	§22-28-16(d), Code of Alabama 1975, as amended
17. Obnoxious Odors	
This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.	Rule 335-3-1-.08
18. Fugitive Dust	
(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.	Rule 335-3-4-.02
(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:	
(1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;	
(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;	
(3) By paving;	
(4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;	

Federally Enforceable Provisos	Regulations
(c) Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.	
19. Additions and Revisions	
Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.	Rule 335-3-16-.13 Rule 335-3-16-.14
20. Recordkeeping Requirements	
(a) Records of required monitoring information of the source shall include the following:	Rule 335-3-16-.05(c)2.
(1) The date, place, and time of all sampling or measurements;	
(2) The date analyses were performed;	
(3) The company or entity that performed the analyses;	
(4) The analytical techniques or methods used;	
(5) The results of all analyses; and	
(6) The operating conditions that existed at the time of sampling or measurement.	
(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit	
21. Reporting Requirements	
(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances	Rule 335-3-16-.05(c)3.

Federally Enforceable Provisos	Regulations
of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).	
(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22. <u>Emission Testing Requirements</u>	
(a) Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.	Rule 335-3-1-.04(1) Rule 335-3-1-.05(3)
(b) The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.	
(c) To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:	
(1) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	
(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).	
(3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.	

Federally Enforceable Provisos	Regulations
(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
(d) A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.	
(e) All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.	
23. Payment of Emission Fees	
Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code r. 335-1-7-.04.	Rule 335-1-7-.04
24. Other Reporting and Testing Requirements	
Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.	Rule 335-3-1-.04(1)
25. Title VI Requirements (Refrigerants)	
Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR part 82, subpart A, appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR part 82, subpart F.	40 CFR part 82
No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR part 82, subpart F.	
The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.	

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
26. Chemical Accidental Prevention Provisions	
If a chemical listed in Table 1 of 40 CFR 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then: (a) The owner or operator shall comply with the provisions in 40 CFR part 68. (b) The owner or operator shall submit one of the following: (1) A compliance schedule for meeting the requirements of 40 CFR part 68 by the date provided in 40 CFR 68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR part 68, including the registration and submission of the Risk Management Plan.	40 CFR part 68
27. Display of Permit	
This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.	Rule 335-3-14-.01(1)(d)
28. Circumvention	
No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.	Rule 335-3-1-.10
29. Visible Emissions	
Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.	Rule 335-3-4-.01(1)

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
30. Fuel-Burning Equipment	
(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.03.	Rule 335-3-4-.03
(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Rule 335-3-5-.01.	Rule 335-3-5-.01
31. Process Industries – General	
Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.04.	Rule 335-3-4-.04
32. Averaging Time for Emission Limits	
Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.	Rule 335-3-1-.05
33. Compliance Assurance Monitoring (CAM)	
Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.	
(a) Operation of Approved Monitoring	40 CFR 64.7
(1) *Commencement of operation*. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).	
(2) *Proper maintenance*. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	

Federally Enforceable Provisos	Regulations
(3) *Continued operation*. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.	
(4) *Response to excursions or exceedances*.	
(i) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions	

Federally Enforceable Provisos	Regulations
to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (ii) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. (5) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.	
(b) Quality Improvement Plan (QIP) Requirements (1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR 64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or	40 CFR 64.8

Federally Enforceable Provisos	Regulations

lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

(2) Elements of a QIP:

(i) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

(ii) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(I) Improved preventive maintenance practices.

(II) Process operation changes.

(III) Appropriate improvements to control methods.

(IV) Other steps appropriate to correct control performance.

(V) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(ii)(I) through (IV) above).

(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require

Federally Enforceable Provisos	Regulations
that an owner or operator make reasonable changes to the QIP if the QIP is found to have: (i) Failed to address the cause of the control device performance problems; or (ii) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. (5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.	
(c) Reporting and Recordkeeping Requirements	40 CFR 64.9
(1) General reporting requirements	
(i) On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code r. 335-3-16-.05(c)3.	
(ii) A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code r. 335-3-16-.05(c)3. and the following information, as applicable:	
(I) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;	
(II) Summary information on the number, duration and cause	

Federally Enforceable Provisos	Regulations
(including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and (III) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. (2) General recordkeeping requirements. (i) The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code r. 335-3-16-.05(c)2.. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (ii) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	

American Midstream-Chatom Plant

General Permit Provisos

Federally Enforceable Provisos	Regulations
(d) Savings Provisions (1) Nothing in this part shall: (i) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part. (ii) Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable. (iii) Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.	40 CFR 64.10

American Midstream-Chatom Plant

Summary Page for Process Heaters & Boilers

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
10184287	**40.2 MMBtu/Hour Utility Boiler**, Natural Gas-Fired	SO_2	0.22 lb/MMBtu of heat input	Rule 335-3-14-.04 [Anti-PSD Limit]
		PM	0.35 lb/MMBtu of heat input	Rule 335-3-4-.03(2)
10184282	**20.8 MMBTU/Hour Process Heater**, Natural Gas-Fired	SO_2	4.0 lb/MMBTU of heat input	Rule 335-3-5-.01(1)(b)
		PM	0.52 lb/MMBtu of heat input	Rule 335-3-4-.03(2)
STABILIZER	**16.5 MMBTU/Hour Stabilizer Reboiler**, Natural Gas-Fired	SO_2	4.0 lb/MMBTU of heat input	Rule 335-3-5-.01(1)(b)
		PM	0.60 lb/MMBtu of heat input	Rule 335-3-4-.03(2)
	ALL	Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)

American Midstream-Chatom Plant

Provisos for Heaters & Boilers

Federally Enforceable Provisos	Regulations
Applicability	
1. Each heating unit is subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. Each heating unit is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.03, "*Fuel Burning Equipment*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.03(2)
3. The 20.8 MMBtu/hr process heater and the 16.5 MMBtu/hr stabilizer reboiler are subject to the applicable requirements of ADEM Admin. Code r. 335-3-5-.01, "*Fuel Combustion*" for Control of Sulfur Compound Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-5-.01(1)(b)
4. The 40.2 MMBtu/hr utility boiler has an emission limitation in place in order to avoid a review under the Prevention of Significant Deterioration (PSD) regulations and is subject to the requirements specified this subpart of this permit.	Rule 335-3-14-.04 [Anti-PSD Limit]
5. Each heating unit is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
6. The 40.2 MMBtu/hr utility boiler is subject to the requirements specified in 40 CFR part 60, subpart D_C, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*" and the requirements specified in this subpart of this permit.	40 CFR 60.40c(a)
Emissions Standards	
1. Each heater and boiler shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the boiler shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)

American Midstream-Chatom Plant

Provisos for Heaters & Boilers

Federally Enforceable Provisos	Regulations
(b) At no time shall the boiler discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. The 40.2 MMBtu/hr utility boiler shall adhere to the following emission standards:	
(a) Sulfur dioxide (SO_2) emissions shall not exceed 0.22 pounds per million Btu (lb/MMBtu) of heat input.	Rule 335-3-14-.04 [Anti-PSD Limit]
(b) Particulate matter (PM) emissions shall not exceed 0.35 lb/MMBtu of heat content.	Rule 335-3-4-.03(2)
3. The 20.8 MMBtu/hr process heater and the 16.5 MMBtu/hr stabilizer reboiler shall adhere to the following emission standards:	
(a) SO_2 emissions shall not exceed 4.0 lb/MMBtu of heat input.	Rule 335-3-5-.01(1)(b)
(b) PM emissions shall not exceed 0.52 lb/MMBtu of heat input for the 20.8 MMBtu/hr process heater.	Rule 335-3-4-.03(2)
(c) PM emissions shall not exceed 0.60 lb/MMBtu of heat input for the 16.5 MMBtu/hr stabilizer reboiler.	Rule 335-3-4-.03(2)
4. The heater and boilers shall not burn fuel other than pipeline quality or sweetened natural gas, unless approval is granted by the Department for an alternative fuel.	Rule 335-3-5-.01
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR part 60, appendix A.	Rule 335-3-4-.01(2)
Emission Monitoring	
1. Provided that visible emissions in excess of the opacity standards are observed at any time, a visible emission observation shall be conducted as specified in *Appendix D* of this permit.	Rule 335-3-1-.04 Rule 335-3-4-.01(2) Rule 335-3-16-.05(c)(1)(i)

American Midstream-Chatom Plant

Provisos for Heaters & Boilers

Federally Enforceable Provisos	Regulations
2. The fuel being burned in each heater and boiler shall be certified as pipeline quality natural gas.	Rule 335-3-1-.04
Recordkeeping and Reporting Requirements	
1. A record of the following information shall be maintained and made available for inspection:	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2)
(a) The date, starting time, and duration of each deviation or exceedance of the requirements specified in the *emission standards* section of this subpart along with the cause and corrective actions taken	
(b) Date and type of boiler maintenance that affects air emissions	
(c) Certification that the fuel being burned is pipeline quality natural gas	
(d) Lbs SO_2/MMBtu = $\frac{[\text{Fuel } H_2S \text{ (ppmv) }] \text{ X } [0.1684 \text{ (Lb } SO_2/\text{Scf})]}{\text{Fuel Heat Content (Btu/Scf)}}$	
(e) Results of each occurrence when a visible emission observation was conducted	
2. For the 40.2 MMBtu/hr utility boiler, the following additional requirements are applicable:	
(a) The amount of natural gas combusted shall be recorded monthly and stored in a manner suitable for inspection for a period of five (5) years following the date the record is made.	§60.48c(g) & §60.48c(i) [As modified by EPA letter dated May 27, 2003]
(b) Monitoring reports detailing all information required by 40 CFR part 60, subpart D_c shall be submitted within 30 days following the end of the calendar year.	§60.48c(j) [As modified by EPA letter dated May 27, 2003]
3. For the purpose of demonstrating compliance with proviso 21(a) of the *general provisos* subpart of this permit, a Periodic Monitoring Report (PMR) meeting the following requirements shall be submitted to the Department:	Rule 335-3-16-.05(c)(3)(i)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	

American Midstream-Chatom Plant

Provisos for Heaters & Boilers

Federally Enforceable Provisos	Regulations
(1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit. (2) For each deviation event, the following information shall be submitted. (i) Emission source description (ii) Permit requirement (iii) Date (iv) Starting time (v) Duration (vi) Actual quantity (vii) Cause (viii) Action taken to return to compliance (ix) Total operating hours of the affected source during the reporting period (x) Total hours of deviation events during the reporting period (xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period (b) If during the reporting period no deviation events occurred, a statement that indicates there were no deviations from the permit requirements shall be included in the report. (c) The report content and format in proviso 3(a) of this section may be modified upon receipt of Departmental approval.	

American Midstream-Chatom Plant

Provisos for Heaters & Boilers

Federally Enforceable Provisos	Regulations
4. Each report specified in proviso 3 of the *recordkeeping and reporting requirement* section of this subpart of this permit shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1st through June 30th — July 31st July 1st through December 31st — January 31st	
5. Each deviation from the requirements specified in the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Summary Page for the 750 BHP Inlet Gas Compressor Engines

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
10187136	**Inlet Gas Compressor Engine No. 1 (East):** 750 BHP Waukesha, L7042 GU, Natural Gas-Fired, Four Stroke Rich Burn ICE, w/Catalytic Converter	NO_X	2.48 lb/hr	Rule 335-3-14-.04 [Anti-PSD Limit]
		VOC	1.65 lb/hr	Rule 335-3-14-.04 [Anti-PSD Limit]
10184350	**Inlet Gas Compressor Engine No. 2 (Middle):** 750 BHP Waukesha, L7042 GU, Natural Gas-Fired, Four Stroke Rich Burn ICE, w/Catalytic Converter	NO_X	2.48 lb/hr	Rule 335-3-14-.04 [Anti-PSD Limit]
		VOC	1.65 lb/hr	Rule 335-3-14-.04 [Anti-PSD Limit]
10187132	**Inlet Gas Compressor Engine No. 3 (West):** 750 BHP Waukesha, L7042 GU, Natural Gas-Fired, Four Stroke Rich Burn ICE, w/Catalytic Converter	NO_X	2.48 lb/hr	Rule 335-3-14-.04 [Anti-PSD Limit]
	ALL	Opacity	No more than one 6 min avg. > 20% AND	Rule 335-3-4-.01(1)(a)
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)
		HAPs	Work or Management Practices	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 11)

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. Each inlet gas compressor engine is subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. Each inlet gas compressor engine has emission limitations in place in order to avoid a review under the Prevention of Significant Deterioration (PSD) regulations and is subject to this subpart of this permit.	Rule 335-3-14-.04 [Anti-PSD Limit]
3. Each inlet gas compressor engine is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
4. Each inlet gas compressor engine is subject to the applicable requirements of 40 CFR part 63, subpart ZZZZ, *"National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)"* for remote stationary RICE and to this subpart of the permit.	40 CFR 63.6585(c) 40 CFR 63.6603(a) & (f)
Emission Standards	
1. Each inlet compressor engine shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the engine shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the engine discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. The inlet gas compressor engines shall adhere to the following emission standards:	

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
(a) Nitrogen oxide (NO_X) emissions shall not exceed 2.48 lb/hr for Engine Nos. 1, 2, & 3.	Rule 335-3-14-.04 [Anti-PSD limit]
(b) Volatile Organic Compound (VOC) emissions shall not exceed 1.65 lb/hr for Engine Nos. 1 & 2.	Rule 335-3-14-.04 [Anti-PSD limit]
(c) The work practice standards found in Table 2d of subpart ZZZZ and as follows in provisos 2(c)(1) through (3):	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 11)
(1) Change oil and filter every 2,160 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirements as specified in 40 CFR §63.6625(j)); AND	
(2) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; AND	
(3) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
3. The inlet gas compressor engines shall not burn fuel other than pipeline quality or sweetened natural gas, unless approval is granted by the Department for an alternative fuel.	Rule 335-3-5-.01
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR part 60, appendix A.	Rule 335-3-4-.01(2)
2. To demonstrate compliance with the Anti-PSD limits, the inlet gas compressor engines shall be tested in accordance with the following requirements:	Rule 335-3-1-.05 Rule 335-3-14-.04 Rule 335-3-16-.05(c)(1)(i)
(a) NO_X testing for Engine Nos. 1, 2, and 3 shall be conducted according to the requirements of one of the following methods:	

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
(1) 40 CFR 60 Appendix A, Method 7 or 7A or 7B or 7C or 7D or 7E, OR other methodology approved by the Department.	
(b) VOC testing for Engine Nos. 1 and 2 shall be conducted according to the requirements of one of the following methods:	
(1) 40 CFR 60 Appendix A, Method 18, OR 40 CFR 60 Appendix A, Method 25 or 25A or 25B or 25C or 25D or 25E, OR other methodology approved by the Department.	
(c) NO_X and VOC emission factors for each inlet gas compressor engine shall be determined in pounds per million Btu during each test. [Test (lb/MMBtu)]	
3. Continuous compliance with the requirements of 40 CFR part 63, subpart ZZZZ shall be demonstrated by meeting one of the following requirements:	§63.6640(a) 40 CFR 63 Subpart ZZZZ Table 6 (No. 9)
(a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions.	
(b) Developing and following your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	
Emission Monitoring	
1. Provided that visible emissions in excess of the opacity standards are observed from an engine at any time, a visible emission observation shall be conducted as specified in *Appendix D* of this permit. Daily visual inspections are not required.	Rule 335-3-4-.01(2)
2. A monitoring system that meets the requirements specified in *Appendix A* of this permit shall be utilized for the inlet compressor engines.	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1)(i)
(a) The monitored parameter may be changed only upon Departmental approval.	

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
3. When possible and practicable, a continuous metering system shall be utilized that is capable of continuously monitoring and recording the fuel gas flow rate to each engine. (a) The continuous measurement may be made with a single meter through which all of the fuel gas for identical make and model engines flow. (1) Calibration, maintenance and operation of metering system shall be performed in accordance to manufacturer's specification. (b) Volumetric flow of fuel gas streams that are not continuously measured shall be accounted for by utilizing special estimating methods (i.e. engineer estimates, material balance, computer simulation, special testing etc.).	Rule 335-3-1-.04
4. A performance test shall be conducted at least once every five (5) years in accordance with the following requirements: (a) A test shall consist of three runs of at least 1-hour in duration each that meets the requirements specified in proviso 4(a)(1) and (2) of this section of this subpart. (1) Each run shall test for the emissions of NO_X and VOC. (2) Each run shall be conducted in accordance to the appropriate reference methods and procedures specified in proviso 2 of the *compliance and performance test methods and procedures* section of this subpart.	Rule 335-3-16-.05(c)(1)
5. The fuel being burned in each inlet compressor engine shall be certified as pipeline quality natural gas.	Rule 335-3-1-.04
6. Each engine's time spent at idle during startup shall be minimized and the engine's startup time shall be minimized to a period needed for appropriate and safe loading of the engine as specified in §63.6625(h).	§63.6625(h)
7. The remote status of each engine shall be reevaluated annually.	§63.6603(f)

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
(a) If the evaluation indicates that the engine(s) no longer meet the definition of remote stationary RICE in §63.775, the engine(s) must comply with the applicable requirements in subpart ZZZZ for engines that are not remote within 1 year of the evaluation.	
Recordkeeping and Reporting Requirements	
1. A monthly record of the following shall be maintained for each inlet compressor engine:	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2)
(a) The date, starting time, and duration of each deviation or exceedance of the requirements specified in the *emission standards* section of this subpart along with the cause and corrective actions taken	
(b) Engine fuel consumption [Fuel Volume (MScf/Month)]	
(c) Certification that the fuel being burned is pipeline quality natural gas	
(d) Engine Fuel Heat Input (MMBtu/Month) = $\frac{\text{[Fuel Volume (MScf/Month)] X [Fuel Heat Content (Btu/Scf)]}}{1{,}000}$	
(e) NO_X & VOC emissions shall be determined as follows: Lbs/Month = [Fuel Heat Input (MMBtu/Month)] X [Test (Lbs/MMBtu)]	
Test emission factors (Lbs/MMBtu) shall be equal to the most recent engine tests results.	
(f) Date and type of engine maintenance	
(g) Total engine operating hours	
(h) Results of each occurrence when a visible emission observation was conducted on each engine	
(i) Initial and annual evaluation of the remote status of each engine	§63.6603(f)

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
2. For the purpose of demonstrating compliance with proviso 21(a) of the *general provisos* subpart of this permit, a Periodic Monitoring Report (PMR) meeting the following requirements shall be submitted to the Department: (a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions. (1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit. (2) For each deviation event, the following information shall be submitted. (i) Emission source description (ii) Permit requirement (iii) Date (iv) Starting time (v) Duration (vi) Actual quantity (vii) Cause (viii) Action taken to return to compliance (ix) Total operating hours of the affected source during the reporting period (x) Total hours of deviation events during the reporting period (xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period	Rule 335-3-16-.05(c)(3)(i)

American Midstream-Chatom Plant

Provisos for Inlet Gas Compressor Engines

Federally Enforceable Provisos	Regulations
(b) If during the reporting period no deviation events occurred, a statement that indicates there were no deviations from the permit requirements shall be included in the report.	
(c) The report content and format in proviso 2(a) of this section may be modified upon receipt of Departmental approval.	
3. Each report specified in provisos 2 of the *recordkeeping and reporting requirement* section of this subpart of this permit shall be submitted using the following reporting schedule:	
Reporting Period — Submittal Date January 1st through June 30th — July 31st July 1st through December 31st — January 31st	
4. Each deviation from the requirements specified in the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

American Midstream-Chatom Plant

Summary Page for 580 BHP Refrigeration Gas Compressor Engines

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
10222555	**Refrigeration Compressor Engine No. 1** 580 BHP Waukesha, L7042 GU, Natural Gas-Fired, Four Stroke Rich Burn ICE	Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
		HAPs	Work or Management Practices	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 11)
10184310	**Refrigeration Compressor Engine No. 2** 580 BHP Waukesha, L7042 GU, Natural Gas-Fired, Four Stroke Rich Burn ICE	Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(a)
		HAPs	Work or Management Practices	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 11)

American Midstream-Chatom Plant

Provisos for Refrigeration Gas Compressor Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. Each refrigeration gas compressor engine is subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. Each refrigeration gas compressor engine is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
3. Each refrigeration gas compressor engine is subject to the applicable requirements of 40 CFR part 63, subpart ZZZZ, *"National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)"* for remote stationary RICE and to this subpart of the permit.	40 CFR 63.6585(c) 40 CFR 63.6603(a) & (f)
Emission Standards	
1. Each refrigeration gas compressor shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the engine shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the engine discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. Each refrigeration gas compressor engine shall comply with the work practice standards found in Table 2d of subpart ZZZZ and as follows in provisos 2(a) through (c):	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 11)

American Midstream-Chatom Plant

Provisos for Refrigeration Gas Compressor Engines

Federally Enforceable Provisos	Regulations
(a) Change oil and filter every 2,160 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirements as specified in 40 CFR §63.6625(j)); AND (b) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; AND (c) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR part 60, appendix A.	Rule 335-3-4-.01(2)
2. Continuous compliance with the requirements of 40 CFR part 63, subpart ZZZZ shall be demonstrated by meeting one of the following requirements: (a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions. (b) Developing and following your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	§63.6640(a) 40 CFR 63 Subpart ZZZZ Table 6 (No. 9)
Emission Monitoring	
1. Provided that visible emissions in excess of the opacity standards are observed from an engine at any time, a visible emission observation shall be conducted as specified in *Appendix D* of this permit. Daily visual inspections are not required.	Rule 335-3-4-.01(2)

American Midstream-Chatom Plant

Provisos for Refrigeration Gas Compressor Engines

Federally Enforceable Provisos	Regulations
2. Each engine's time spent at idle during startup shall be minimized and the engine's startup time shall be minimized to a period needed for appropriate and safe loading of the engine as specified in §63.6625(h).	§63.6625(h)
3. The remote status of each engine shall be reevaluated annually.	§63.6603(f)
(a) If the evaluation indicates that the engine(s) no longer meet the definition of remote stationary RICE in §63.775, the engine(s) must comply with the applicable requirements in subpart ZZZZ for engines that are not remote within 1 year of the evaluation.	
Recordkeeping and Reporting Requirements	
1. A monthly record of the following shall be maintained for each engine:	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2)
(a) Total engine operating hours	
(b) Maintenance performed on each engine to demonstrate that the unit was operated and maintained according to its maintenance plan	
(c) Results of each occurrence when a visible emission observation was conducted on each engine	
(d) Initial and annual evaluation of the remote status of each engine	§63.6603(f)
2. For the purpose of demonstrating compliance with proviso 21(a) of the *general provisos* subpart of this permit, a Periodic Monitoring Report (PMR) meeting the following requirements shall be submitted to the Department:	Rule 335-3-16-.05(c)(3)(i)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	
(1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit.	

American Midstream-Chatom Plant

Provisos for Refrigeration Gas Compressor Engines

Federally Enforceable Provisos	Regulations

(2) For each deviation event, the following information shall be submitted.

(i) Emission source description

(ii) Permit requirement

(iii) Date

(iv) Starting time

(v) Duration

(vi) Actual quantity

(vii) Cause

(viii) Action taken to return to compliance

(ix) Total operating hours of the affected source during the reporting period

(x) Total hours of deviation events during the reporting period

(xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period

(b) If during the reporting period no deviation events occurred, a statement that indicates there were no deviations from the permit requirements shall be included in the report.

(c) The report content and format in proviso 2(a) of this section may be modified upon receipt of Departmental approval.

American Midstream-Chatom Plant

Provisos for Refrigeration Gas Compressor Engines

Federally Enforceable Provisos	Regulations
3. Each report specified in provisos 2 of the *recordkeeping and reporting requirement* section of this subpart of this permit shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1st through June 30th — July 31st July 1st through December 31st — January 31st	
4. Each deviation from the requirements specified in the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Summary Page for Miscellaneous Engines

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
10184350	**Re-compressor Engine No. 1** 458 BHP Waukesha L5108, Natural Gas Fired, Four Stroke Rich Burn ICE	Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
		HAPs	Work or Management Practices	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 10)
10184351	**Re-compressor Engine No. 2** 458 BHP Waukesha L5108, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184133	**Electric Generator Engine No. 1** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184119	**Electric Generator Engine No. 2** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184134	**Electric Generator Engine No. 3** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184135	**Electric Generator Engine No. 4** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184144	**Electric Generator Engine No. 5** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	
10184131	**Electric Generator Engine No. 6** 375 HP Waukesha L3521, Natural Gas Fired, Four Stroke Rich Burn ICE		See above	

American Midstream-Chatom Plant

Provisos for Miscellaneous Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. Each miscellaneous engine is subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. Each miscellaneous engine is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
3. Each miscellaneous engine is subject to the applicable requirements of 40 CFR part 63, subpart ZZZZ, *"National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)"* and to this subpart of the permit.	40 CFR 63.6585(c) 40 CFR 63.6603(a)
Emission Standards	
1. Each miscellaneous engine shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the engine shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the engine discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. Each miscellaneous engine shall comply with the work practice standards found in Table 2d of subpart ZZZZ and as follows in provisos 2(a) through (c):	§63.6603(a) 40 CFR 63 Subpart ZZZZ Table 2d (No. 10)

American Midstream-Chatom Plant

Provisos for Miscellaneous Engines

Federally Enforceable Provisos	Regulations
(a) Change oil and filter every 1,440 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirements as specified in 40 CFR §63.6625(j)); AND (b) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; AND (c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR part 60, appendix A.	Rule 335-3-4-.01(2)
2. Continuous compliance with the requirements of 40 CFR part 63, subpart ZZZZ shall be demonstrated by meeting one of the following requirements: (a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions. (b) Developing and following your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	§63.6640(a) 40 CFR 63 Subpart ZZZZ Table 6 (No. 9)
Emission Monitoring	
1. Provided that visible emissions in excess of the opacity standards are observed from an engine at any time, a visible emission observation shall be conducted as specified in *Appendix D* of this permit. Daily visual inspections are not required.	Rule 335-3-4-.01(2)

American Midstream-Chatom Plant

Provisos for Miscellaneous Engines

Federally Enforceable Provisos	Regulations
2. Each engine's time spent at idle during startup shall be minimized and the engine's startup time shall be minimized to a period needed for appropriate and safe loading of the engine as specified in §63.6625(h).	§63.6625(h)
Recordkeeping and Reporting Requirements	
1. A monthly record of the following shall be maintained for each engine: (a) Total engine operating hours (b) Maintenance performed on each engine to demonstrate that the unit was operated and maintained according to its maintenance plan (c) Results of each occurrence when a visible emission observation was conducted on each engine	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2)
2. For the purpose of demonstrating compliance with proviso 21(a) of the *general provisos* subpart of this permit, a Periodic Monitoring Report (PMR) meeting the following requirements shall be submitted to the Department: (a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions. (1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit. (2) For each deviation event, the following information shall be submitted. (i) Emission source description (ii) Permit requirement	Rule 335-3-16-.05(c)(3)(i)

American Midstream-Chatom Plant

Provisos for Miscellaneous Engines

Federally Enforceable Provisos	Regulations

(iii) Date

(iv) Starting time

(v) Duration

(vi) Actual quantity

(vii) Cause

(viii) Action taken to return to compliance

(ix) Total operating hours of the affected source during the reporting period

(x) Total hours of deviation events during the reporting period

(xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period

(b) If during the reporting period no deviation events occurred, a statement that indicates there were no deviations from the permit requirements shall be included in the report.

(c) The report content and format in proviso 2(a) of this section may be modified upon receipt of Departmental approval.

3. Each report specified in provisos 2 of the *recordkeeping and reporting requirement* section of this subpart of this permit shall be submitted using the following reporting schedule:

Reporting Period	Submittal Date
January 1st through June 30th	July 31st
July 1st through December 31st	January 31st

American Midstream-Chatom Plant

Provisos for Miscellaneous Engines

Federally Enforceable Provisos		Regulations
4.	Each deviation from the requirements specified in the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

American Midstream-Chatom Plant

Summary Page for Sulfur Recovery Unit and Thermal Oxidizer

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
(10184323)	**Thermal oxidizer**	Opacity	No more than one 6 min avg. > 20% AND	Rule 335-3-4-.01(1)(a)
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)
		H_2S	Burn gas with 0.10 grains of H_2S/scf	Rule 335-3-5-.03(1)
		H_2S	20 ppbv offsite	Rule 335-3-5-.03(2)
	Sulfur Recovery Unit (SRU) Available Sulfur for Category II Counties			Rule 335-3-5-.03(3)
	Available sulfur ≤ 10 LTons/Day	SO_2	No Limit	
	Or			
	Available sulfur > 10 LTons/Day and ≤ 50 LTons/Day	SO_2	560 Lbs SO_2/Hour	
	Or			
	Available sulfur > 50 LTons/Day and ≤ 100 LTons/Day	SO_2	0.10 Lbs SO_2/Lb Sulfur	
	Or			
	Available sulfur > 100 LTons/Day	SO_2	0.08 Lbs SO_2/Lb Sulfur	
	Allowable SO_2 emission increases relative to the H_2S content of acid gas:			Rule 335-3-5-.03(3)(a)
	H_2S% in acid gas ≥ 50% & < 60%	SO_2	0.02 Lbs SO_2/Lb Sulfur	
	Or			
	H_2S% in acid gas ≥ 40% & < 50%	SO_2	0.04 Lbs SO_2/Lb Sulfur	
	Or			
	H_2S% in acid gas ≥ 30% & < 40%	SO_2	0.06 Lbs SO_2/Lb Sulfur	
	Or			
	H_2S% in acid gas ≥ 20% & < 30%	SO_2	0.10 Lbs SO_2/Lb Sulfur	

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
Applicability	
1. The thermal oxidizer is subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. The thermal oxidizer is subject to the applicable requirements of ADEM Admin. r. 335-3-5-.03, "*Petroleum Production*" for Control of Sulfur Compound Emissions and the requirements specified in this subpart of the permit.	Rule 335-3-5-.03(1), (2), (3)
3. The thermal oxidizer is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
4. The thermal oxidizer is subject to 40 CFR part 64, "*Compliance Assurance Monitoring*" as indicated in proviso 33 of the *General Permit Provisos* subpart and in this subpart of the permit.	40 CFR part 64
Emission Standards	
1. The thermal oxidizer shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the thermal oxidizer shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the thermal oxidizer discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. All process gas containing greater than 0.10 grains of H_2S/scf shall be properly burned in the thermal oxidizer or the process flare.	Rule 335-3-5-.03(1)

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
3. All process gas streams containing 0.10 of a grain of hydrogen sulfide per Scf shall be burned to the extent that the ground level concentrations of hydrogen sulfide shall be less than twenty (20) parts per billion beyond plant property limits, averaged over a thirty (30) minute period.	Rule 335-3-5-.03(2)
4. Based on the available sulfur long tons per day (Ltons/day), the sulfur dioxide emissions shall not exceed the allowable emission limit as specified in the following provisos: (a) There is no SO_2 emissions limit, if the available sulfur is less than or equal to 10 LTons/Day. (b) 560 Lbs/Hour {i.e. sulfur recovery efficiency ranging from => 70% to => 94%}, if the available sulfur is greater than 10 LTons/Day and is less than or equal to 50 LTons/day. (c) 0.10 Lbs. of SO_2/Lb. of sulfur processed {i.e. sulfur recovery efficiency => 95%}, if the available sulfur is greater than 50 LTons/Day and is less than or equal to 100 LTons/day. (d) 0.08 Lbs. of SO_2/Lb. of sulfur processed {i.e. sulfur recovery efficiency => 96%}, if the available sulfur is greater than 100 LTons/Day.	Rule 335-3-5-.03(3)
5. Based on the percentage of H_2S in the dry acid gas stream, the allowable sulfur dioxide emission limits specified in proviso 4 of this section of this subpart shall be adjusted as follows: (a) Increased by 0.02 Lbs of SO_2/Lb. of sulfur processed {i.e. decrease sulfur recovery efficiency by 1%}, if the H_2S content in the acid gas stream is equal to or greater than 50% and less than 60%. (b) Increased by 0.04 Lbs of SO_2/Lb. of sulfur processed {i.e. decrease sulfur recovery efficiency by 2%}, if the H_2S content in the acid gas stream is greater than or equal to 40% and less than 50%.	Rule 335-3-5-.03(3)(a)

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations

(c) Increased by 0.06 Lbs of SO_2/Lb. of sulfur processed {i.e. decrease sulfur recovery efficiency by 3%}, if the H_2S content in the acid gas stream is greater than or equal to 30% and less than 40%.

(d) Increased by 0.10 Lbs of SO_2/Lb. of sulfur processed {i.e. decrease sulfur recovery efficiency by 5%}, if the H_2S content in the acid gas stream is greater than or equal to 20% and less than 30%.

(e) The facility must utilize the best available control technology, with consideration to technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility if the H_2S content in the acid gas stream is less than 20%.

6. The following equation shall be used to calculate the sulfur recovery efficiency:

Sulfur recovery efficiency % =

$$\left(\frac{(Sulfur\ Feed\ Rate\ (Lbs/Hr)) - (Sulfur\ Compound\ Emission\ Rate\ (Lbs/Hr))}{(Sulfur\ Feed\ Rate\ (Lbs/hr))} \right) X\ 100$$

(a) The sulfur feed rate, sulfur compound emission rate, and sulfur recovery efficiency shall be rounded off to one decimal place.

(b) Sulfur feed rate means the mass rate of sulfur compounds that are removed from the sour gas feed to and by the sweetening unit and that are contained within acid gas stream(s).

(c) Sulfur feed rate is inclusive of all acid gas streams that are sent to the sulfur recovery system along with those that are diverted away from and are never recycled back to the sulfur recovery system or process provided the diverted stream is not being accounted for with the SRS CEMS.

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
(1) Acid gas stream means gas stream(s) (i.e. amine regeneration column(s) overhead gas stream, rich amine flash drum(s) overhead gas stream, etc.) that exit the sweetening unit which have a significantly higher sulfur and/or carbon dioxide concentration than that of the sour gas that feeds the sweetening unit.	
(2) Acid gas does not include overhead gas stream(s) exiting amine contacting column(s) (i.e. residue gas, sales gas, off speck gas, fuel gas. etc) that are located within the sweetening unit and cannot be sent to the sulfur recovery system.	
(d) Sulfur compound emission rate means the mass rate of sulfur compounds that are emitted from the sweetening unit and the sulfur recovery system.	
(e) Sulfur compound emission rate is inclusive of the sulfur recovery system thermal oxidizer effluent stack gas streams and all acid gas streams that are diverted away from and are never recycled back to the sulfur recovery system or process.	
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR part 60, appendix A.	Rule 335-3-4-.01(2)
2. Each acid gas stream entering the thermal oxidizer shall be tested for its hydrogen sulfide (H_2S) content utilizing the following methods and procedures:	Rule 335-3-1-.05 Rule 335-3-16-.05(c)(1)(i)
(a) The sample collected shall be analyzed utilizing the Tutwiler procedures found in §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture.	
[Acid Gas H_2S (Mole %)]	

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
3. Provided the available sulfur is greater than 10 LTons/Day, a performance test meeting the following requirements shall be conducted to demonstrate compliance with the SO_2 emission allowable:	Rule 335-3-1-.05 Rule 335-3-16-.05(c)(1)(i)
(a) SO_2 and TRS emissions testing shall be conducted in accordance with the appropriate reference methods and procedures specified below:	
(1) 40 CFR 60 Appendix A, Method 1 or 1A	
(2) 40 CFR 60 Appendix A, Method 2 or 2A or 2B or 2C or 2D or 2E	
(3) 40 CFR 60 Appendix A, Method 3 or 3A or 3B or 3C	
(4) 40 CFR 60 Appendix A, Method 4	
(5) 40 CFR 60 Appendix A, Method 6 or 6A or 6B or 6C	
(6) 40 CFR 60 Appendix A, Method 15 or 15 A or 16 or 16A or 16B	
(7) Methods and procedures specified in §60.644	
(b) The pollutants tested for and the methods and procedures that are utilized may be modified upon receiving Departmental approval.	
Emission Monitoring	
1. A daily visible inspection shall be conducted on the thermal oxidizer. Provided that visible emissions in excess of the opacity standards are observed at any time, a visible emission observation shall be conducted as specified in *Appendix D* of this permit.	Rule 335-3-4-.01(2)
2. Monitoring meeting the requirements specified in *Appendix B* of this permit shall be utilized for the SRU and thermal oxidizer.	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1)(i) §64.6(b) & (c)

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
3. Each acid gas stream that may be routed to the thermal oxidizer shall be tested for H_2S by capturing one representative sample of the stream at a frequency of no less than once each month.	Rule 335-3-1-.04
4. A performance test shall be conducted at least once every twelve (12) months in accordance with the following requirements:	Rule 335-3-16-.05(c)(1)
(a) A test shall consist of three runs of at least 1-hour in duration each that meets the requirements specified in proviso 4(a)(1) and (2) of this section of this subpart.	
(1) Each run shall test for the emissions of SO_2 and TRS.	
(2) Each run shall be conducted in accordance to the appropriate reference methods and procedures specified in proviso 3 of the *compliance and performance test methods and procedures* section of this subpart.	
5. Each process gas stream that has to be vented to atmosphere shall be captured and sent to the thermal oxidizer or the process flare for combustion.	
(a) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility.	
(b) Except when vessels and equipment are being de-pressurized and/or emptied and the reduced pressure will not allow flow of the gas to a control device, the venting to the atmosphere of any process gas stream that is subject to this proviso for a duration in excess of 15 continuous minutes shall be deemed an exceedance of the *emission standards* section of this subpart.	
Recordkeeping and Reporting Requirements	
1. A record of the following information shall be maintained and made available for inspection:	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2)

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos			Regulations
	(a)	The date, starting time, and duration of each deviation or exceedance of the requirements specified in the *emission standards* section of this subpart along with the cause and corrective actions taken	
	(b)	The date, time, and results of each performance test along with any other tests conducted on the SRU and thermal oxidizer that provide additional stack pollutant content data	
	(c)	The date and time of each shut down, start up or malfunction of the gas sweetening unit, the SRU, or the thermal oxidizer	§60.7(b)
	(d)	Date and type of maintenance that affects air emissions	
	(e)	Results of each daily visual inspection of the thermal oxidizer	
	(f)	Results of each occurrence when a visible emission observation was conducted	
	(g)	The three hour rolling average CMS calculations and analysis of the sulfur recovery efficiency, the sulfur dioxide emissions, and the thermal oxidizer firebox temperature	
2.	Monitoring reports meeting the requirements specified in proviso 2(a) through (c) of this section of this subpart shall be submitted to the Department.		Rule 335-3-16-.05(c)(3)(i) §64.9(b)
	(a)	Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations

(1) A deviation shall mean any condition determined by observation, by data collected by any continuous monitoring system or periodic monitoring required by the permit that can be used to determine compliance, that identifies an affected source has failed to meet an applicable emission limit or standard or that a work practice was not complied with or completed.

(2) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.

(b) An Excessive Emission and CMS Performance Report and Summary Report meeting the requirements specified in provisos 2(b)(1) and (2) to this section of this subpart shall be submitted to the Department. §60.7(c)

(1) Except as provided for in proviso 2(d) of this section, the report shall meet the requirements specified in 40 CFR 60.7(c).

(2) The report shall be submitted on a quarterly calendar basis according to the following reporting schedule:

Reporting Period	Submittal Date
January 1st through March 31st	*April 30th*
April 1st through June 30th	*July 31st*
July 1st through September 30th	*October 31st*
October 1st through December 31st	*January 31st*

(c) A Periodic Monitoring Report (PMR) meeting the requirements specified in provisos 2(c)(1) and (2) of this section of this subpart shall be submitted to the Department.

(1) Except as provided for in proviso 2(d) of this section, the report shall meet the requirements specified in proviso 2(c)(1)(i).

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations

(i) For each deviation event, the following information shall be submitted:

(I) Emission source description

(II) Permit requirement

(III) Date

(IV) Starting time

(V) Duration

(VI) Actual quantity of pollutant or parameter

(VII) Cause

(VIII) Actions taken to return to normal operating conditions

(IX) Total operating hours of the affected source during the reporting period

(X) Total hours of deviation events during the reporting period

(XI) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period

(2) Each PMR shall cover no more than a calendar semi-annual period and shall be submitted according to the following reporting schedule:

Reporting Period	Submittal Date
January 1st through June 30th	July 31st
July 1st through December 31st	January 31st

American Midstream-Chatom Plant

Provisos for SRU & Thermal Oxidizer

Federally Enforceable Provisos	Regulations
(d) The report content and format in proviso 2(b) and (c) of this section may be modified upon receipt of Departmental approval.	
3. Each deviation from the requirements specified in this subpart that occurs during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the *General Provisos* subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

American Midstream-Chatom Plant

Summary Page for Process Flare

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
Flare No. 1	Process Flare	SO_2	No limit provided that the available sulfur is less than or equal to 10 LTons/day	Rule 335-3-5-.03(3)
		H_2S	Burn gas with 0.10 grains of H_2S/scf	Rule 335-3-5-.03(1)
			20 ppbv offsite	Rule 335-3-5-.03(2)
		Opacity	No visible emissions except for 5 consecutive minutes in a 2 hour averaging period.	40 CFR 60.18(c)(1) 40 CFR 60.633(g) Subpart KKK

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
Applicability	
1. The process flare is subject to the applicable requirements of ADEM Admin. r. 335-3-5-.03, "*Petroleum Production*" for Control of Sulfur Compound Emissions and the requirements specified in this subpart of the permit.	Rule 335-3-5-.03(1), (2), (3)
2. The process flare is subject to the requirements of ADEM Admin. Code r. 335-3-16, "*Major Source Operating Permits*" as specified in the Alabama Department of Environmental Management Administrative Code and in this subpart of this permit.	Rule 335-3-16-.03
3. The process flare shall comply with the requirements specified in 40 CFR part 60, subpart A, "*General Provisions*" and as specified in this subpart of this permit.	40 CFR 60.18(b)
4. The process flare is used to combust captured emissions from affected facilities covered under 40 CFR part 60, subpart KKK.	40 CFR 60.633(g)
5. The process flare is subject to 40 CFR part 64, "*Compliance Assurance Monitoring*" as indicated in proviso 33 of the *General Permit Provisos* subpart and in this subpart of the permit.	40 CFR part 64
Emission Standards	
1. Provided available sulfur is equal to or less than 10 long tons per day, there is no limit on sulfur dioxide emissions. A record of SO_2 emissions shall be kept for reporting purposes.	Rule 335-3-5-.03(3)
2. All process gas containing greater than 0.10 grains of H_2S/scf shall be properly burned in the thermal oxidizer or the process flare.	Rule 335-3-5-.03(1)
3. All process gas streams containing 0.10 of a grain of hydrogen sulfide per Scf shall be burned to the extent that the ground level concentrations of hydrogen sulfide shall be less than twenty (20) parts per billion beyond plant property limits, averaged over a thirty (30) minute period.	Rule 335-3-5-.03(2)

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
4. To demonstrate compliance with 40 CFR part 60, subpart KKK, the process flare shall meet the following requirements:	
(a) Be designed for and operated with no visible emissions, except for a 5-minute period during any consecutive 2-hour period	§60.18(c)(1)
(b) Operate with a flame present at all times	§60.18(c)(2)
(c) Be steam-assisted, air-assisted, or non-assisted	§60.18(c)(6)
(d) Adhere to the following:	§60.18(c)(3)
(1) Heat content specifications in §60.18(c)(3)(ii)	
AND	
(2) Maximum tip velocity specifications in §60.18(c)(4)	
OR	
(3) The requirements of §60.18(c)(3)(i)	
(e) Operate at all times when emissions may be vented to it	§60.18(e)
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 22 of 40 CFR part 60, appendix A.	§60.18(f)(1)
2. Compliance with proviso 4(d) of the *emission standards* section of this subpart shall be determined using the methods and procedures specified in 40 CFR 60.18(f)(3)-(6).	§60.18(f)(3)-(6)
3. For the purpose of demonstrating compliance with provisos 1 through 3 of the *emission standards* section of this subpart, each process stream that can be sent to the flare shall be tested using the following methods and procedures:	Rule 335-3-1-.05 Rule 335-3-16-.05(c)(1)(i)

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
(a) The hydrogen sulfide (H_2S) content shall be determined by collecting a sample and analyzing it utilizing the Tutwiler procedures found in §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture. [Stream H_2S Content (Mole %)]	
(b) The volatile organic compound (VOC) weight percent, Btu heat content, and molecular weight of each process stream shall be determined by collecting a sample and analyzing it utilizing ASTM Analysis Method D1826-77; chromatographic analysis procedures found in 40 CFR part 60, appendix A, Method 18 or equivalent methods and procedures. [Stream VOC Content (VOC Wt%)] [Stream Heat Content (Btu/Scf)] [Stream Molecular Weight (Mole Wt)]	
Emission Monitoring	
1. Provided that visible emissions in excess of the opacity standards are observed from the process flare at any time that the unit is operating, a visible emission observation shall be conducted as specified in *Appendix E* of this permit.	Rule 335-3-1-.04
2. Monitoring meeting the requirements specified in *Appendix C* of this permit shall be utilized for the process flare.	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1) §64.6(b) & (c)
3. Each gas stream that may be routed to the flare shall be tested as specified below:	Rule 335-3-1-.05
(a) H_2S testing shall consist of capturing one representative sample of the stream at a frequency of no less than once every four (4) months.	
(b) The VOC weight percent, Btu content, and molecular weight of each process stream shall be determined by collecting a representative sample of the stream and analyzing it at a frequency of no less than once every twelve (12) months.	

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
(c) Provided multiple process streams can be sent to the process flare and it is possible to capture a common stream whose contents would be representative of all the streams, that common stream may be used instead of the individual process streams.	
(d) The frequency of this testing may be modified upon receipt of Department approval.	
4. Each process gas stream that has to be vented to atmosphere shall be captured and sent to the thermal oxidizer or the process flare for combustion.	
(a) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility.	
(b) Except when vessels and equipment are being de-pressurized and/or emptied and the reduced pressure will not allow flow of the gas to a control device, the venting to the atmosphere of any process gas stream that is subject to this proviso for a duration in excess of 15 continuous minutes shall be deemed an exceedance of the *emission standards* section of this subpart.	
Record Keeping and Reporting Requirements	
1. For the purpose of demonstrating compliance with the *emission standards* section of this subpart, a monthly record of the following information shall be maintained and made available for inspection:	Rule 335-3-1-.04 Rule 335-3-16-.05(c)(2) §64.9
(a) Volume of gas burned in flare [Volume Burned (MScf/Month)]	
(b) Stream Heat Input (MMBtu/Month) = [Volume Burned (MScf/Month)] X [(1000 Scf/1 MScf)] X [Stream Heat Content (Btu/Scf)] X [(1 MMBtu/10^6 Btu]	
(c) Flare Heat Input (MMBtu/Month) = $\sum$ Stream Heat Input (MMBtu/Month)	

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
(d) Stream H_2S (Lbs/Month) = [Volume Burned (MScf/Month)] X [(1000 Scf/MScf)] X [1 lb-mol/380 Scf] X [{Stream H_2S Content (Mole %)}/{100}] X [34 Lbs H_2S/lb-mol H_2S]	
(e) Flare H_2S feed rate (Lbs/Month) = $\sum$ Stream H_2S (Lbs/Month)	
(f) Number of hours that the flare was operated during the month [Flare (Hours/Month)]	
(g) Flare H_2S feed rate (Lbs/Hour) = $\frac{\text{Flare } H_2S \text{ feed rate (Lbs/Month)}}{\text{Flare (Hours/Month)}}$	
(h) Flare SO_2 Emissions (Lbs/Month) = $\frac{[\text{ Flare } H_2S \text{ feed rate (Lbs/Month) }] \text{ X } [\text{ 64 Lbs of } SO_2\text{/ lb-mol }]}{[\text{ 34 Lbs } H_2S\text{/lb-mol }]}$	
(i) Results of each daily visible emission observation conducted on the flare.	
(j) The date, starting time, and duration of each deviation or exceedance of the requirements specified in the *emission standards* section of this subpart along with the cause and corrective actions taken.	
2. Monitoring reports meeting the requirements specified in proviso 2(a) through (c) of this section of this subpart shall be submitted to the Department.	Rule 335-3-16-.05(c)(3)(i)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations

(1) A deviation shall mean any condition determined by observation, by data collected by any continuous monitoring system or periodic monitoring required by the permit that can be used to determine compliance, that identifies an affected source has failed to meet an applicable emission limit or standard or that a work practice was not complied with or completed.

(2) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.

(b) A Periodic Monitoring Report (PMR) meeting the requirements specified in the following provisos shall be submitted to the Department:

(1) Except as provided for in proviso 2(c) of this section, the report shall meet the requirements specified in proviso 2(b)(1)(i).

(i) For each deviation event, the following information shall be submitted.

(I) Emission source description

(II) Permit requirement

(III) Date

(IV) Starting time

(V) Duration

(VI) Actual quantity

(VII) Cause

(VIII) Action taken to return to compliance

American Midstream-Chatom Plant

Provisos for Process Flare

Federally Enforceable Provisos	Regulations
(IX) Total operating hours of the affected source during the reporting period (X) Total hours of deviation events during the reporting period (XI) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period (2) Each PMR shall cover no more than a calendar semi-annual period and shall be submitted according to the following reporting schedule: (3) Reporting Period — Submittal Date January 1st through June 30th — July 31st July 1st through December 31st — January 31st (c) The report content and format in proviso 2(b) of this section may be modified upon receipt of Departmental approval.	
3. Each deviation from the requirements specified in the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

American Midstream-Chatom Plant

Summary Page for VOC Equipment Leaks from Natural Gas Processing Plants

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8760** Hours/Year

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
FUGITIVE	All affected facilities located at an onshore natural gas processing plant	Fugitive VOC	LDAR work practices	40 CFR part 60, subpart KKK §60.630

Affected facility within process unit:

Compressors, except reciprocating compressors, in VOC service or wet gas service

Group of all equipment within a process unit:

- Each valve
- Each pump
- Each pressure relief device
- Each sampling connection system
- Each open-ended valve or line
- Each flange or other connector

Each glycol dehydration unit
Each sweetening unit
Liquefied natural gas unit

Process units :

- Inlet gathering & separation unit
- Condensate stabilization unit
- Gas sweetening unit

American Midstream-Chatom Plant

Provisos for VOC Equipment Leaks from Onshore Natural Gas Processing Plants

Federally Enforceable Provisos	Regulations
Applicability	
1. Except as specified in 40 CFR 60.630(d), the affected facilities listed below are subject to the requirements found in 40 CFR part 60, subpart KKK, "*Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants".* Affected facilities under this subpart are as follows:	Rule 335-3-10-.02(63) §60.630(a)(1)
(a) Each compressor in VOC service or in wet gas service, except reciprocating compressors in wet gas service	§60. 630(a)(2) §60. 633(f)
(b) The group of all equipment within a process unit in VOC service or in wet gas service as specified in proviso 1(b)(1) through (5).	§60. 630(a)(3)
(1) Each pump	
(2) Each pressure relief device	
(3) Each open-ended valve or line	
(4) Each valve	
(5) Each flange or other connector	
(c) A compressor station, dehydration unit, sweetening unit, underground storage tanks, field gas gathering system, or liquefied natural gas units located at the Chatom Plant would also be covered under subpart KKK.	§60. 630(e)
Emissions Standards	
1. The emission standards as specified in either 1(a) or 1(b) shall be met to demonstrate compliance with this subpart.	§60.632(a) §60.482-1(a) §60.480(e)

American Midstream-Chatom Plant

Provisos for VOC Equipment Leaks from Onshore Natural Gas Processing Plants

Federally Enforceable Provisos			Regulations
(a)	Except as specified in §60.633 of subpart KKK, each affected facility shall comply with the emission standards specified in the following provisos:		
	(1)	Pumps in light liquid service shall comply with §60.482-2 of 40 CFR part 60, subpart VV, except as specified in §60.633(d) and (e) of subpart KKK.	§60.482-1(a) §60.482-2 §60.633(d) & (e)
	(2)	Compressors shall comply with §60.482-3 of subpart VV, except as specified in §60.633(f) of subpart KKK.	§60.482-1(a) §60.482-3 §60.633(f)
	(3)	Pressure relief devices in gas/vapor service shall comply with §60.482-4 of subpart VV, except as specified in §60.633 (b), (d), and (e) of subpart KKK.	§60.482-1(a) §60.482-4 §60.633(b), (d), & (e)
	(4)	Sampling connection systems under subpart KKK are exempt from the requirements of §60.482-5 in subpart VV.	§60.633(c)
	(5)	Open-ended valves or lines shall comply with §60.482-6 of subpart VV.	§60.482-1(a) §60.482-6
	(6)	Valves in gas/vapor service and in light liquid service shall comply with 60.482-7 of subpart VV, except as specified in §60.633(d) and (e) of subpart KKK.	§60.482-1(a) §60.482-7 §60.633(d) & (e)
	(7)	Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors shall comply with §60.482-8 of subpart VV.	§60.482-1(a) §60.482-8
	(8)	Delay of repair requirements in §60.482-9 of subpart VV shall be complied with.	§60.482-1(a) §60.482-9
	(9)	Closed vent systems and control devices shall comply with §60.482-10 of subpart VV.	§60.482-1(a) §60.482-10

American Midstream-Chatom Plant

Provisos for VOC Equipment Leaks from Onshore Natural Gas Processing Plants

Federally Enforceable Provisos	Regulations
(i) A flare used to meet any of the above requirement shall comply with the requirements specified in §60.18 of 40 CFR part 60, subpart A.	§60.633(g)
(b) As an alternative means of compliance, the provisions of 40 CFR part 65, subpart F may be complied with to satisfy the requirements of §60.482 through §60.487 of subpart VV for an affected facility.	§60.480(e) §60.482-1(a)
2. Equipment that is in vacuum service is excluded from the requirements of §60.482-2 through §60.482-10 of subpart VV if it is identified as required in §60.486(e)(5) of subpart VV.	§60.632(a) §60.482-1(d) §60.486(e)(5)
3. An owner or operator may elect to comply with the alternative standards for valves specified in §60.483-1 or 60.483-2 of subpart VV.	§60.632(b)
4. An owner or operator may apply for permission to use an alternative means of emission limitations as specified in §60.634 of subpart KKK to satisfy the requirements of §60.482 through §60.487 of subpart VV for an affected facility.	§60.632(c) §60.634
Compliance and Performance Test Methods and Procedures	
1. Compliance with the requirements in §60.482-1 through §60.482-10 of subpart VV shall be determined by the review of records and reports, inspections, and the review of performance test results using the methods and procedures specified in §60.485 of subpart VV.	§60.632(d) §60.482-1(b) §60.485
Emission Monitoring	
1. The inspection and monitoring requirements specified in §60.482-1 through §60.482-10 of subpart VV and either §60.483-1 or §60.483-2 of subpart VV shall be complied with.	§60.632(a) & (b)

American Midstream-Chatom Plant

Provisos for VOC Equipment Leaks from Onshore Natural Gas Processing Plants

Federally Enforceable Provisos	Regulations
Recordkeeping and Reporting Requirements	Rule 335-3-10-.02(63)
1. The facility shall comply with the recordkeeping and reporting requirements specified in §60.7 and §60.19 of subpart A and §60.486 and §60.487 of subpart VV, except as provided for in §60.633, §60.635 and §60.636 of subpart KKK.	§60.7 §60.19 §60.632(e) §60.486 §60.487
2. A Leak Detection and Repair (LDAR) summary report shall be submitted to the Department:	§60.636(c) §60.487(c)
(a) The report shall include the information specified in §60.636(c) of subpart KKK and a summary of the recordkeeping requirements found in §60.486 of subpart VV as specified in §60.487(c).	
(b) The report shall cover a calendar semi-annual period and shall be submitted to the Department on the following reporting schedule:	

Reporting Period	Submittal Date
January 1st through June 30th	July 31st
July 1st through December 31st	January 31st

American Midstream-Chatom Plant

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Appendix A: 750 BHP Inlet Compressor Engine Monitoring

American Midstream-Chatom Plant

Each 750 BHP Inlet Compressor Engine

Monitoring approach:	*Periodic Monitoring*	*Periodic Monitoring—Choose at least one:*		
I. Indicator	**Calculate pollutant emissions according to proviso 1 of the recordkeeping & reporting section**	**Pressure drop across the catalyst bed**	**Temperature drop across the catalyst bed**	**NO_X concentrations in the exhaust gas**
A. Measurement approach	Fuel gas volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation. BTU content of fuel gas stream shall be determined semi-annually or as set by the Department. Pollutant emission factors shall be determined during performance and periodic tests.	Pressure differential will be obtained by observing and recording the pressure immediately upstream and downstream of the catalyst bed.	Temperature differential will be obtained by observing and recording the temperature immediately upstream and downstream of the catalyst bed.	NO_X concentrations will be obtained by using a portable monitor to analyze the gases downstream of the catalytic converter.
II. Indicator range	**NO_X emissions shall be maintained at <= 2.48 Lbs/Hr (for all engines)**	**Pressure differential shall not exceed the manufacturer's maximum recommended pressure differential that indicates sufficient catalyst performance.**	**Temperature differential shall not exceed the manufacturer's maximum recommended temperature differential that indicates sufficient catalyst performance.**	**NO_X concentrations in the catalytic converter exhaust gas shall not exceed the NO_X concentrations from the latest performance test.**
	A deviation is defined as anytime the calculated emission rate exceeds the respective allowed emission rates. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.	A deviation is defined as anytime the pressure differential exceeds the recommended pressure differential. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.	A deviation is defined as anytime the temperature differential exceeds the recommended temperature differential. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.	A deviation is defined as anytime the NO_X concentration exceeds the concentration from the latest performance test. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.

American Midstream-Chatom Plant

Each 750 BHP Inlet Compressor Engine

Monitoring approach:	*Periodic Monitoring*	*Periodic Monitoring—Choose at least one:*		
A QIP threshold	Not applicable	Not applicable	Not applicable	Not applicable
III. Performance criteria				
A. Data representiveness	Fuel gas volume monitor shall be located immediately upstream of the engine. Fuel gas BTU content shall be determined from samples that are representative of the fuel gas being consumed. Performance tests shall be undertaken while engine is being operated at normal loads.	Pressure monitors shall be placed upstream and downstream of the catalyst bed.	Temperature monitors shall be placed upstream and downstream of the catalyst bed.	The portable monitor calibration gas used shall have concentrations that are: Greater than or equal to 150% of, AND Less than or equal to 10% of, AND Approximately equal to, the concentrations obtained from the last performance test. The portable monitor must be capable of less than 5% error when compared to the calibration gases.

American Midstream-Chatom Plant

Each 750 BHP Inlet Compressor Engine

Monitoring approach:	*Periodic Monitoring*	*Periodic Monitoring —Choose at least one:*		
B. Verification of operational status	Not applicable	Not applicable	Not applicable	Not applicable
C. QA/QC practices & criteria	Not applicable	The pressure monitors shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually whichever is more frequent.	The temperature monitors shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually whichever is more frequent.	Should the portable monitor exceed the 5% error margin, it shall be taken out of service until it is either repaired, replaced, or passes a new calibration test.
D. Monitoring frequency	Fuel gas volume measured continuously Fuel gas BTU content shall be determined semi-annually, or as set by the Department.	Pressure differential shall be monitored weekly.	Temperature differential shall be monitored weekly.	NO_X concentrations shall be monitored weekly.
	Performance tests shall be undertaken once every five years.	Performance tests shall be undertaken once every five years.	Performance tests shall be undertaken once every five years.	Performance tests shall be undertaken once every five years.
Data collection procedure	Calculate: Monthly Pollutant emissions while utilizing the fuel volume, BTU content, emission factor and operating hours Fuel gas volume consumed Record: Monthly	Record: Weekly	Record: Weekly	Record: Weekly
	Fuel gas volume consumed	Pressure differential	Temperature differential	NO_X Concentration

American Midstream-Chatom Plant

Each 750 BHP Inlet Compressor Engine

Monitoring approach:	*Periodic Monitoring*	*Periodic Monitoring —Choose at least one:*		
	Hours of operation Pollutant emissions Record: Each occurrence Fuel gas BTU content determination Time, date and results of each inspection and corrective actions taken	Record: Each occurrence Time, date and results of each inspection and corrective actions taken	Record: Each occurrence Time, date and results of each inspection and corrective action taken	Record: Each occurrence Time, date and results of each inspection and corrective action taken
Averaging period	Monthly	Not applicable	Not applicable	Not applicable

American Midstream-Chatom Plant

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Appendix B: SRU & Thermal Oxidizer Monitoring

American Midstream-Chatom Plant

SRU & Thermal Oxidizer

Monitoring approach:	*Sulfur Recovery Unit* *Compliance Assurance Monitoring (CAM)*	*Thermal Oxidizer* *Compliance Assurance Monitoring (CAM)*
I. Indicator	**Sulfur recovery efficiency & Sulfur dioxide emission rate**	**Thermal Oxidizer firebox temperature**
A. Measurement approach	Inlet feed volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculation along with its sulfur content. Bypass volume shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculation through a valve. Sulfur content of each bypass stream shall be determined monthly, or as set by the Department. Effluent volume and sulfur content shall be monitored with a system capable of continuously measuring and recording the flow rate and/or the parameters utilized for flow rate calculation along with its sulfur dioxide content.	Firebox temperature shall be monitored with a thermocouple or equivalent device.
	A continuous emissions monitoring system that is capable of assimilating the above information, analyzing that information and making appropriate calculations for each monitoring cycle and each rolling three hour period while recording relevant information and calculation results shall be utilized. Each three hour rolling average calculation shall consist of either: The calculation of numerically averaged parameters for each rolling three hour period while utilizing the appropriate average parameter in calculating a flow rate, a mass rate and a recovery efficiency for that rolling three hour period. OR The calculation of a flow rate, mass rate and recovery efficiency for each continuous emissions monitoring system cycle that occurred during the rolling three hour period while calculating a numerically averaged flow rate, mass rate and recovery efficiency for that rolling three hour period. OR	A continuous emissions monitoring system that is capable of assimilating the above information, analyzing that information and making appropriate calculations for each monitoring cycle and each rolling three hour period while recording relevant information and calculation results shall be utilized. Each three hour rolling average calculation shall consist of : The calculation of a numerically averaged temperature for each rolling three hour period.

American Midstream-Chatom Plant

SRU & Thermal Oxidizer

Monitoring approach:	*Sulfur Recovery Unit* *Compliance Assurance Monitoring (CAM)*	*Thermal Oxidizer* *Compliance Assurance Monitoring (CAM)*
	Any approved combination of the above two methods and procedures for making averaged calculations.	
II. Indicator range	**SO_2 emissions or sulfur recover efficiency shall be maintained** **@ Unlimited Lbs of SO_2/Hr** If available sulfur is < 10 LTons/Day **@ 560 Lbs of SO_2/Hr plus adjustment** *(i.e. sulfur recovery efficiency ranging from => 70% to 94% minus adjustment)* If available sulfur is = > 10 LTons/Day & < 50 LTons/Day **@ 0.1 Lbs of SO_2/Lb of sulfur processed plus adjustment** *(i.e. sulfur recovery efficiency => 95% minus adjustment)* If available sulfur is = > 50 LTons/Day &< 100 LTons/Day **@ 0.08 Lbs of SO_2/Lb of sulfur processed plus adjustment** *(i.e. sulfur recovery efficiency => 96% minus adjustment)* If available sulfur is = > 100 LTons/Day	**Firebox temperature shall be maintained at ≥ the firebox temperature utilized during the latest stack test.**
	A deviation is defined as anytime the three hour rolling average SO_2 rate is greater than the value calculated while utilizing the above equations or the three hour rolling average sulfur recovery efficiency is less than the value calculated while utilizing the above equations.	A deviation is defined as anytime the three hour rolling average firebox temperature is < 1,200 °F.
	A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR Part 64.7(d) and reporting within 48 hours or two work days.	A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days. The minimum firebox temperature may be modified upon receipt of Departmental approval.
A QIP threshold	If the accumulated hours of deviation events occurring exceeds 2% of the sulfur recovery system operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.	If the accumulated hours of deviation events occurring exceeds 2% of the sulfur recovery system operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.

American Midstream-Chatom Plant

SRU & Thermal Oxidizer

Monitoring approach:	*Sulfur Recovery Unit* *Compliance Assurance Monitoring (CAM)*	*Thermal Oxidizer* *Compliance Assurance Monitoring (CAM)*
III. Performance criteria		
A. Data representiveness	The location of each inlet sensor shall located be upstream of the sulfur recovery unit and shall consist of a single device that monitors all streams or multiple sensors that monitors individual or multiple streams. The location of the effluent sensor shall be within the thermal oxidizer stack and shall consist of a multiple device that monitors all appropriate parameters.	Each temperature sensor shall be located within the combustion chamber or immediately downstream of the combustion chamber.
	The volume sensor shall be accurate to within ±0.50%. The content sensor shall be accurate to within ±5.0%.	The temperature sensor shall be accurate to within ±4 °F or 0.75%.
B. Verification of operational status	Not applicable	Not applicable
C. QA/QC practices & criteria	A program for the continuous emission monitoring system shall be developed and implemented that meets the requirements specified in the following regulations: §60.13 of 40 CFR Part 60, Subpart A 40 CFR Part 60, Appendix F 40 CFR Part 60, Appendix B, PS 2 40 CFR Part 60, Appendix B, PS 6 Each bypass sensor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately.	Each temperature sensor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately.
	If a sensor fails its calibration test, the sensor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.	If the sensor fails its calibration test, the sensor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.

American Midstream-Chatom Plant

SRU & Thermal Oxidizer

Monitoring approach:	*Sulfur Recovery Unit* *Compliance Assurance Monitoring (CAM)*	*Thermal Oxidizer* *Compliance Assurance Monitoring (CAM)*
D. Monitoring frequency	Inlet volume or inlet volume parameters and inlet content shall be measured continuously. Bypass volume parameters shall be measured continuously. Sulfur content of each bypass stream shall be determined annually or as requested by Department. Effluent volume or effluent volume parameters and effluent content shall be measured continuously.	Temperature shall be measured continuously. Temperature shall be measured continuously.
Data collection procedure	Calculate and record hourly and rolling three hour averages of the following items: Volumes & sulfur mass rates of: Inlet streams Bypass streams Thermal oxidizer effluent Actual sulfur dioxide emission rate Allowed sulfur recovery efficiency Actual sulfur recovery efficiency Record each monthly H_2S concentration analysis. Record calibration results. Record inspection results and corrective actions taken.	Record hourly and rolling three hour average firebox temperature. Record calibration results. Record inspection results and corrective actions taken.
Averaging period	Rolling three hours	Rolling three hours

American Midstream-Chatom Plant

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Appendix C: Emergency Flare Monitoring

American Midstream-Chatom Plant

Process Flare Monitoring

Monitoring approach:	*Periodic Monitoring*	*Compliance Assurance Monitoring (CAM)*
I. Indicator	**H_2S feed rate**	**Operate flare with a flame or spark present at all times when a process gas stream may be sent to it.**
A. Measurement approach	Inlet feed volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculations or estimated utilizing material balances, computer simulations, special testing, etc. Inlet feed analyzed once every four months for its H_2S content. Frequency may be modified upon receipt of Departmental approval.	The flare tip shall be equipped either with a continuous sparking flame igniter that is monitored by an amp meter or an equivalent device *OR* visual observation *OR* with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual observation.
II. Indicator range	**H_2S feed rate <=2,440 Lbs/Hr** A deviation is defined as anytime the average H_2S feed rate is > 2,440 lb/hr. If the accumulated hours of deviation events occurring exceeds 5% of the flare's operating time during any semi- annual period triggers an immediate running of an air quality modeling study that utilizes the maximum inlet mass and flow rates that occurred during this period shall be undertaken. The maximum feed rate may be modified upon receipt of Departmental approval.	**Presence of a flame or spark at flare tip** A deviation is defined as when there was no spark or flame present at the flare tip when a process gas stream could be vented to it. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
A QIP threshold	Not applicable	If more than 6 deviations occur during any semi-annual reporting period, a Quality Improvement Plan shall be developed and implemented.
III. Performance criteria		
A. Data representiveness	Each volume monitor shall be located upstream of the flare and shall consist of a single device that monitors all streams or multiple devices that monitor individual or multiple streams. The sample point for obtaining the H_2S content shall be located at or upstream of each volume monitor.	Each flame igniter or flame monitor shall be located at the flare tip and focused on the area where gas exits the flare tip. Visual observations shall be made from the location that provides the best view of the flare tip and/or flare pilot lights or flare igniter.

American Midstream-Chatom Plant

Process Flare Monitoring

Monitoring approach:	*Periodic Monitoring*	*Compliance Assurance Monitoring (CAM)*
B. Verification of operational status	Not applicable	Not applicable
C. QA/QC practices & criteria	Each volume monitor shall be maintained and calibrated in accordance with the manufacturer's specifications.	Each flame igniter or flame monitor shall be maintained and calibrated in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is properly maintained and calibrated accurately, or at least annually whichever is more frequent. Repairs and/or replacements shall be made immediately when non-functioning or damaged parts are found. Flame igniter arc length shall not exceed 10%of arc interval and shall have an arcing frequency of no greater than once every 3 seconds.
D. Monitoring frequency	Inlet volume shall be measured continuously	Pilot flame shall be monitored either continuously with a thermocouple or daily with visual inspections if operating staff is on site.
	Inlet feed H_2S content sample obtained and analyzed once every four months.	Flame igniter - arcing frequency shall be monitored either continuously with an amp meter or daily with visual inspections if operating staff is on site.
Data collection procedure	Calculate &/or record an inlet volume that is representative of the average daily volume entering the flare.	Record time, date and duration of each incident of when no spark or flame was present at the flare tip when a process gas stream could have been sent to it.
	Record daily hours of operation	
	Record each H_2S concentration analysis	
	Calculate & record H_2S feed	Record time, date and results of each visual observation
	Record time, date and results of each calibration	Record time, date and results of each calibration
	Record time, date and results of each inspection and corrective actions taken	Record time, date and results of each inspection and corrective actions taken
	Submit air quality modeling results to the Department within 60 days of the end of the semi- annual period.	
Averaging period	One hour	Instantaneous

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Appendix D: Units Subject to Opacity Standard Monitoring

American Midstream-Chatom Plant

Units Subject to Opacity Standard

Monitoring approach:	*Periodic Monitoring*
I. Indicator	**Opacity**
A. Measurement approach	Provided the unit referred to in the unit specific section is being operated and a daily visual inspection of the unit for visible emissions is required, the visual inspection shall meet the following requirements: • Visual inspections must be conducted for a duration of at least 6 minutes during daylight hours, except as specified below o A daily visual inspection is not required during periods that the production facility is unmanned by plant personnel, when a process stream is not being sent to the thermal oxidizer, or when any of the other units subject to the state opacity standard is not being operated • If visible emissions, in excess of the opacity standards, are observed during the daily visual inspection of a unit, a visible emissions observation (VEO) shall be performed that meets the following requirements: o Duration of each observation shall be >= 15 minutes AND <= 60 minutes o Each observation shall be conducted in accordance to either: Test Method 9 of 40 CFR Part 60 - Method 9 shall only be performed by an individual certified in using that method OR Test Method 22 of 40 CFR Part 60
II. Indicator range	**2nd 6-min. opacity average >= 20%** **Each 6-min. opacity average >= 40%** **OR** **> 12 minutes of visible emissions during observation** An exceedance is defined as anytime the observed 6-minute average opacity exceeds 20% for the 2nd time when utilizing Method 9. An exceedance is defined as anytime the observed 6-minute average opacity exceeds 40% for the 1st time when utilizing Method 9. A deviation is defined as anytime the accumulated time in which visible emissions were observed exceeds 12 minutes per observation when utilizing Method 22. A deviation or exceedance triggers continued visible emissions observations at a frequency suitable to defining the emission deviation or exceedance event. One observation shall be undertaken to establish the end of the visible emission deviation event. A deviation or exceedance triggers an inspection, corrective action, and immediate reporting within 48 hours or two work days.

American Midstream-Chatom Plant

III. Performance criteria	
A. Monitoring frequency	Daily visual inspection of each unit; Each VEO occurrence
Data collection procedure	Record: Time, date, and duration of each daily visual inspection of each unit subject to the state opacity standards
	Record: Time, date, and duration of each occurrence when a VEO was performed on the flare or thermal oxidizer
	Each 15 second observation reading for the VEO
	Record: Each occurrence of VEO
	Time, date and results of corrective actions taken
Averaging period	Six minutes

(THIS PAGE LEFT BLANK INTENTIONALLY)

American Midstream-Chatom Plant

Appendix E: Emergency Flare Opacity Monitoring

American Midstream-Chatom Plant

Opacity Monitoring for the Emergency Flare

Monitoring approach:	*Periodic Monitoring*
I. Indicator	**Opacity for Emergency Flare (Flare No. 1) [§60.18(c)(1)]**
A. Measurement approach	Provided the facility flare is being operated, a visual emission observation shall be undertaken within 30 minutes of the commencement of a flaring event. Duration of each observation shall be >= 5 minutes AND <= 120 minutes Each observation shall be conducted in accordance with Test Method 22 of 40 CFR Part 60
II. Indicator range	**There shall be no visible emissions observed, except for periods not to exceed 5 minutes over any consecutive 2-hour period** An exceedance is defined as anytime visible emissions are observed for more than 5 minutes over a consecutive 2-hour period when utilizing Method 22 A deviation or exceedance triggers continued visible emissions observations at a frequency suitable to defining the emission deviation or exceedance event. One observation shall be undertaken to establish the end of the visible emission deviation event. A deviation or exceedance triggers an inspection, corrective action, and immediate reporting within 48 hours or two work days.
III. Performance criteria	
A. Monitoring frequency	Each flaring event, or as set by the Department
Data collection procedure	Record: Each flaring event, or as set by the Department Record: Clock time for the start of the observation period and the end of the observation period Duration of the Observation Period Emission Time Record: Each occurrence Time, date and results of corrective actions taken
Averaging period	Not applicable